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ABSTRACT

The 25 papers in this collection were presented at the meetings of three sections of the Division of Collections and Services and a workshop: (1) "Survey of International Exchange of Non-Official Publications: Progress Report" (Ulla Hojsgaard); (2) "Buying Media for Everyone: Public Library Acquisition in Scandinavia" (Tove Persson); (3) "The Conflict between Copyright and Document Supply: Real or Imagined?" (Graham P. Cornish); (4) "ISDS (International Serials Data System) and Union Catalogues" (Suzanne Santiago); (5) "NOSP Revisited: The Changing Roles of the Nordic Union Catalogue of Serials" (Annika Salomonsen); (6) "Automation and the Union Catalogue" (Jean M. Plaister); (7) "Use of Comparative Acquisitions Data To Boost Government Participation in University Library Budgets" (Shmuel Sever); (8) "Forgery and Fraud; Murder and Suicide: A North American Perspective" (Richard Landon); (9) "Mass Deacidification: Now That It Is a Reality, What Next?" (Richard Frieder); (10) "Will the Chain Break? Differential Pricing as Part of a New Pricing Structure for Research Literature and Its Consequences for the Future of Scholarly Communication: Short Introduction of the Topic" (Ulrich Montag); (11) "Differential Pricing: STM (Scientific, Technical, and Medical) Publishers' Practices and Perspectives" (Karen Hunter); (12) "A Bookseller's Perspective on the Problem of Differential Pricing" (Knut Dorn); (13) "The International Problem of Differential Pricing for Research Literature" (Rolf Griebel); (14) "Authors and Editors Aren't Worried--for Now" (Richard M. Dougherty); (15) "CD-ROM: Impact on the Interlending Area" (Graham P. Cornish); (16) "The CD-KAT Story" (Svante Hallgren); (17) "CD-ROM and the Reference Librarian: The End of Innocence" (Richard Biddiscombe); (18) "Copyright Law in the Federal Republic of Germany and the Libraries" (Heinz Fuchs); (19) "CD-ROM Programme and Projects Supported by the Commission of the European Community (CEC)" (Niels Mark); (20) "Introducing CD-ROM in a University Library" (Lilian Madsen); (21) "State of the Art: Technology and Products Application Areas for CD-ROM" (Roar Storleer); (22) "International Exchange and Documentation of Official Publications: A Scandinavian View" (Ulla Hojsgaard); (23) "Parliamentary Documents and Other Official Publications" (Lisbet H. Engstrom); (24) "Newspaper Production Technology Today and in the 20 Years To Come" (Juhanni Allard-Kurikka); and (25) "Development of the Swedish Press and Journalism Since the Thirty Years War until Today" (Ingemar Oscarsson). (MAB)

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56th IFLA
GENERAL CONFERENCE
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BOOKLET 5

DIVISION OF COLLECTIONS AND SERVICES

SECTION OF ACQUISITION AND EXCHANGE

Session 143 Wednesday 22 August 11:15–13:45

Survey of International Exchange of Non-Official Publications: Progress Report (37-ACQUIS-4-E)
— Ulla Højsgaard, Danish Institute for International Exchange of Publications, Copenhagen, Denmark

Buying Media for everyone: Public Library Acquisition in Scandinavia (36-ACQUIS-3-E)
— Tove Persson, Malmö Stadsbibliotek, Malmö, Sweden

SECTION OF INTERLENDING AND DOCUMENT DELIVERY

Session 105 Tuesday 21 August 09:00–11:30

The Conflict between Copyright and Document Supply: real or imagined? (44-INTL-1-E)
— Graham P. Cornish, IFLA Office for International Lending, Boston Spa, UK

SECTION OF SERIAL PUBLICATIONS

Session 94 Monday 20 August 10:30–13:00

ISDS and Union Catalogues (20-SER-1-E)
— Suzanne Santiago, ISDS, Paris, France

NOSP revisited: the changing Roles of the Nordic Union Catalogue of Serials (21-SER-2-E)
— Annika Salomonsen, Royal Library, Copenhagen, Denmark

Automation and the Union Catalogue (22-SER-3-E)
— Jean M. Plaister, LASER, London, UK

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Survey of International Exchange of Non-official Publications: progress report

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Abstract
The "Working Group on International Exchange of Non-official Publications" is presented together with the intentions behind the decision to conduct an international survey. The objectives of the survey are to study the economy of international exchange of publications in relation to other means of acquisition as part of collection development and management. The contents of the survey are given and the way in which it has been prepared and conducted is discussed.

The reply rate has been most satisfactory but at this stage only very basic results are available. Qualitative results call for careful handling of the databases and for subdivision into clusters of comparable data. Further results and a proposal for a seminar in connection with the IFLA meeting in Moscow 1991 will be given at the Stockholm meeting.

At the IFLA meeting in Brighton in 1987 a suggestion was made that the name of our section be changed from "Acquisition and Exchange" to "Acquisition" alone. As exchange is one way of acquiring library materials work on exchange would still be included. The intention behind the suggestion was to emphasize more dynamic work directed towards the informations market and to enchance the prestige of the section.

As exchange of publications is of major concern to large numbers of IFLA-members the proposal fell.

The attitude to exchange of publications as a costly way of acquiring marginal material provided the necessary challenge to exchange librarians on the standing committee who with some concern had noticed the increasing aversion towards exchange based on generalisations rather than substantiated facts.

Exchange of publications has two – often contradictory – objectives: to promote own publications and to receive something useful in return. If a library processes material received on exchange that would otherwise not have been included in the collections, acquisitions policies rather than exchange as acquisitions method are to be blamed.

Evaluation of exchange in relation to other means of acquisition based on facts rather than myths should thus be of major concern to any library and members of the section decided to form a 'Working Group on International Exchange of Non-official Publications".

Members of the working-group were from the beginning:
Peter H. Bridge, The Library of Congress, USA; Karl-Heinz Jügelt, University Library, Rostock, DDR; Marie-Simone Régnier, Bibliothèque Nationale, Paris, France; Sieglinde E.H. Rooney, Edmonton University Library, Alberta, Canada; Ulla Højsgaard, IDE, Danish Institute for International Exchange of Publications, Copenhagen, Denmark. In 1989 Peter H. Bridge left the standing committee and Judy McDermott also from The Library of Congress has joined the SC and the working group in his place.

We decided to make an extensive survey on international exchange of non-official publica-

tions, and that the results should form a basis for further and more detailed studies.

The objective of the survey was to provide information on the economy of international exchange in relation to other means of acquisition as part of collection development:

A questionnaire in English was prepared through collective efforts and the final text agreed upon at the IFLA-meeting in Sydney. Sieglinde Rooney from the University Library, Edmonton, Canada made major contributions and edited the final version of the text. During the following period the text was translated into French, German, Russian and Spanish. Working group members from Bibliothèque Nationale in Paris, the University Library in Rostock, and The Library of Congress took on this responsibility.

As we all know some countries depend heavily on international exchange due to closed or weak economies and we wanted to be able to obtain information enabling us to analyse the results country by country and region by region.

It was thus decided that the questionnaire should be sent to all research libraries holding IFLA membership and that this mailing list should be supplemented with Soviet and Eastern European libraries. Karl-Heinz Jügelt of the Rostock University Library provided addresses that should ensure a certain regional balance. We were well aware of the fact, that developing countries and their special problems could not be covered directly through the survey, but anticipated that the results could be used to detect whether special studies should be carried out.

The survey contains 60 major questions, many of which are subdivided, organized in six main categories:

Scope
- Exchange or not exchange
- Why not exchange – facts and attitudes
- Exchange by library type and geographical area (number of partners)
- Organization of international exchange at the national level

Administration
- Organization of international exchange within the libraries:
  Staff-resources: acquisitions/exchange respectively
  Automation: acquisitions/exchange respectively

Collection management
- Policies
- Materials exchanged: types of material
- Acquisition of materials for exchange: cost of material in relation to total acquisitions budget
- Amount of material sent and received through international exchange in relation to total acquisitions budget
- Balancing exchange agreements
- Evaluation of exchange agreements

National centres for International exchange

Suggestions for future studies on international exchange

Interest in a one-day seminar

The questionnaire was sent to 861 libraries in 108 countries in June 1989 by IDE The Danish Institute for International Exchange of Publications and a reminder was sent in September

1989. By May 1990 430 replies from 69 countries have been returned which is a reply rate of 50 %. This is considered most satisfactory taking the size of the survey and the reply-rate of similar surveys of about 45–50 % into consideration. Most of the countries from which the survey has not been returned are third world countries, which indicates that a special study, as anticipated, should be made. Unfortunately replies have not been received from any of the six Romanian libraries on the mailing list. A renewed effort to include Romanian libraries in the survey is made. Of the 460 surveys 22 came from libraries that should not have had the survey at all and two were returned without name and address of the library. 265 of the remaining 406 have an exchange programme and it is anticipated that a major part of the libraries which have not returned the survey do not conduct international exchange on a larger scale.

All replies have been keyed into a PC using dBASEIII software. Three databases have been constructed as the maximum number of fields in each database is 128. The three databases are linked together through identical fields containing information on the libraries:

- country
- region
- library type
- library number

The replies contain much supplementary information which has been translated into English. We have to add a field on language as discrepancies between the 5 versions of the survey have appeared in connection with the handling of the replies. Although extra work is involved many more misunderstanding would most likely have occurred if the survey had been in English only.

So far only simple figures have been extracted from the data:

265 conduct exchange

111 does not conduct exchange

30 have extremely limited exchange

Of the 141 "negative" replies 51 have no free material to offer, 30 prefer purchase and 26 do not regard exchange cost-effective. 34 give other reasons, some are not allowed to conduct international exchange and some hope to establish programmes. Roughly half of the positive replies have less than 150 international exchange partners, 22 have between 150 and 200, and 127 have more than 200. Library of Congress alone has 15.000 partners.

To be able to establish regional patterns of international exchange we have asked for an estimation of the number of exchange partners in geographical regions as defined in "Demographic Yearbook", 1985. Although some libraries have not been able to make this estimate it will be possible to establish patterns of the flow of material within and between geographical regions.

National exchange centres are widely used but only 29 indicate that they cooperate solely with national centres.

Organization of exchange falls within estimated patterns and it is still too early to tell whether one way of organizing exchange is more economical than others. As expected the proportion of professional staff in relation to support staff is higher for exchange than for acquisitions in general, but these figures must be seen in relation to proportion of exchange of total acquisitions and in relation to regions.

Almost 25 % have rationalized exchange procedures within the last 5 years but the reduction in staff time is insignificant. Some automation has taken place of acquisitions procedures especially for monographs but also for periodicals and for exchange and 52 % expect to have automated exchange procedures within the next 5 years. The reduction in staff time as a

consequence of automation is insignificant too.

Simple counts show that enormous amounts of publications are exchanged internationally, as almost 330.000 periodical titles (how many identical titles can of course not be given) are received on exchange and almost 260.000 are sent. 358.000 new imprints of monographs are received and almost 458.000 are sent.

Many libraries are interested in future studies on the economy and organization of international exchange based on the survey, and 126 libraries welcome the opportunity to participate in a seminar.

More data will be available before the IFLA-meeting in Stockholm but it can already be established that qualitative evaluation calls for intensive work and careful handling of the data.

Geographical regions and the information on library type seem at this stage to be important tools for future work as clusters of data can be compared.

So far none of the questions asked seem redundant, some might have been phrased in a different way and a pilot project should probably have been carried out among the members of the working group. This would have meant that some of the methodological problems would have been eliminated.

On the other hand, had that been the case we would have found out how much work is involved and we might never have ventured to carry out a full scale survey.

Although reliable general results can not be given at this stage, more detailed results will be presented at the IFLA meeting in Stockholm and the Working Group will be able to present and discuss the program for a full day seminar in connection with the IFLA meeting in Moscow next year.

Buying Media for Everyone
Public library acquisition in Scandinavia

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Abstract
The lecture deals with media acquisitions by public libraries in the Scandinavian countries, with the emphasis on conditions in Sweden. Acquisition volumes and the distribution of different types of media are discussed. Other topics considered are the work of selection, the question of quality, developments in the field of video, media for various handicapped groups, and service to immigrants. In addition, the paper discusses the increased interest in the way the media stock actually functions and how it can best be presented.

Is it possible to buy media for everyone? The task of school libraries and research libraries may be easier in this respect. They have clearly defined target groups with well formulated needs. Public libraries are intended for everyone. Our visitors can be of any age from 0 to 100. They can be interested in any subject under the sun, at any level from the most elementary to the most advanced. There are many groups of handicapped people, each of them requiring specially adapted media. Our visitors can speak any one of at least a hundred languages.

Buying media is a difficult task, but it also brings stimulation and fun. It is even such fun that we ourselves have begun to suspect that we may be devoting too much of our energy and time to selecting and buying media, and too little to putting them into circulation once they end up on our shelves. It goes without saying that it is not possible to give an exhaustive account of public library acquisition in Scandinavia in a single lecture. I have chosen to provide a general overview and then deal with some shared features and current trends. Since I work in a Swedish library I shall mostly be discussing conditions in Sweden, but I shall also take an occasional look for comparative purposes at other countries in Scandinavia.

Acquisition, volumes and the distribution of different types of media

Those who want a general view of public libraries in Scandinavia now have a new aid. A project group in the Nordic Statistical Secretariat has produced library statistics for Scandinavia, which appeared last autumn in a trial edition covering the year 1987. This gives us an easy way to compare acquisition and lending in the Nordic libraries. In 1987 the growth of books and audio-visual media in Denmark's libraries was 500 per 1.000 inhabitants, in Finland 532, and in Sweden 304. No details were available for Norway. The acquisitions were distributed as follows in Denmark: 55 % adult literature, 36 % children's literature and 9 % audio-visual media. The distribution in Sweden was 59 % adult literature, 36 % children's literature and 5 % audio-visual media. Purchases in Finland were 93 % books and 7 % audio-visual media (the Finnish acquisition statistics do not separate children's literature from adults').

It is obvious that visitors to Danish and Finnish libraries are very fortunate. They have nearly twice as many new books to choose from as library visitors in Sweden. Naturally they also borrow twice as much. In 1987 the Danes borrowed 18.2 volumes per inhabitant, the Finns 17 volumes per inhabitant, and the Swedes 8.8 volumes. In Norway the figure was 4.4

volumes. It can therefore be assumed that the number of acquisitions in Norway is lower than in Sweden. However, the Swedes use their libraries as much as the Finns. About 63 % of the population in both countries visit their libraries.

Each year the Swedish National Council for Cultural Affairs publishes a report on the situation of the book in the country. The latest report presents the tendencies in library acquisition in the period 1980–1987. Book acquisitions have varied with no definite tendency. The stock of audio-visual media has increased sharply, especially talking books, which have increased by 173 % to 500.000 units. The increase is doubtless due to a special state subsidy for the purchase of talking books. Video tapes have increased during the period from 250 to 5.000 units, which is still a very low figure in an international perspective. Books still predominate totally, whereas audio-visual media make up only 3.5 of the stock.
Subscriptions to newspapers and periodicals have increased in the 1980s by 14 % to 140.000. Purchases of musical recordings have decreased slightly.

Books are expensive in Scandinavia. The average price of an adult book in Sweden is about $ 26. A new novel normally costs about $ 40. The Scandinavian languages are spoken by relatively few people, so books are published in small editions, which puts the price up. The number of titles in Swedish which are of general interest is about 5.000 a year. On top of this, we Scandinavians are deplorably bad at reading each other's languages, which could otherwise have broadened the book-market. Moreover, as a result of customs duties and currency exchange, books become almost twice as expensive when they are sold in another Scandinavian country. And, as we have seen, they are not cheap to begin with.

The organization of purchasing

Most public libraries in Sweden buy the mayor part of their books and other media through Bibliotekstjänst (Library Service Ltd) and its collective binding service. Bibliotekstjänst, which is owned by the Swedish Library Association and the Swedish Association of Local Authorities, offers the libraries a complete service for selection, purchasing, classification, cataloguing, binding and equipment.

Similar services – although taking somewhat different forms – exist also in Denmark, way and Finland. Bibliotekstjänst regularly issues lists of books and audio-visual media with brief reviews. As regards Swedish books, everything that the publishers judge to be of interest to Swedish libraries is presented. As regards foreign books and audio-visual media, a selection is presented.

These collective binding lists make it possible for the libraries to monitor, at a reasonable expenditure of labour, at least all the *Swedish* books that are published. Decisions about purchases are generally made by a purchasing committee on which the library's departments and branches are represented. Book purchasing meetings are planned so that they tie in with Bibliotekstjänst's ordering periods. The collective binding lists and the books meetings have long been the cornerstones of purchasing work. In recent years, however, voices have begun to discuss and question this. A major project entitled "Emergency Slaughtering of sacred cows", which is entirely about media acqusition, has recently been completed. Part of the project was about buying media without book meetings, and another part was about managing without the collective binding list. The project was carried out in Örebro County under the leadership of Lena Skoglund and is described in Scandinavian Public Library Quarterly 1989:4.

As regards foreign literature, the collective binding lists are inadequate for larger libraries, such as Malmö stadsbibliotek, where I myself work. For us it is absolutely necessary to follow book issues through newspapers and journals from each country. We have contacts with booksellers in some forty countries. When it comes to purchases in languages which the staff

do not know, we engage consultants, usually home language teachers. Malmö stadsbibliotek buys about 10.000 titles a year of which half are Swedish, half in other languages. The Swedish titles, of course, are bought in many more copies.

The question of quality

The Scandinavian libraries have their root in public education. Most libraries have politically decided guide-lines for the choise of media, the essence of which is to strive for good quality. With respect to non-fiction this is uncontroversial. Nobody wants bad non-fiction with incorrect data. When it comes to fiction, on the other hand, there are often conflicts between the library's acquisition policy and the wishes of the borrowers. You will have to look long and hard in Scandinavian libraries to find Jackie Collins, Judith Krantz, or Sidney Sheldon, and indeed you will scarcely find them at all in Norway or Sweden. The debate about the quality policy of the Swedish libraries is conducted on two fronts. Some library visitors and certain journalists claim that the libraries are snobbish and exercise censorship, and that people ought to be able to get what they want in the libraries. On the other hand, authors, intellectuals and other journalists claim that the libraries are in fact commercial and populist, and that they fail in their task of promoting serious literature and out-of-the-ordinary authors. When Jackie Collins was invited to the Book and Library Fair in Gothenburg last autumn, you can imagine the endless debate this provoked in our newspapers.

Of course, one may wonder why the quality question is so hotly debated in the Nordic countries when people elsewhere hardly bother about it. I can think of two reasons. Firstly, the number of books published in the Scandinavian languages is rather small. In Sweden there are about 5.000 titles per year that are relevant to the libraries. Only a small proportion of this is fiction. This means that it is possible to have a general view of the entire stock and to assess each title. Secondly, in small language areas the libraries also play an important role in national literature. Assistant professor Pertti Vakkari has examined this topic in an article entitled "The role of the Public Library in the Finnish Book Culture". He writes: "The library in Finland has a central role in guarenteeing the availability and accessibility of high-quality, varied literature and thus in maintaining and promoting reading activity".

The lending chain

It is impossible for a library to be self-sufficient as regards media. It would be irrational and uneconomical to try to be. The network is highly important. The municipal libraries in Sweden obtain help from the county libraries with interlibrary loans and deposits. The next link in the chain is the three lending centres, each of wich lends media and arrange loans from research libraries and specialist libraries in Sweden and abroad. The lending chain has a somewhat different structure in other Scandinavian countries, but the principle is the same. What the municipal libraries primarily needs to borrow from the county library is specialist literature, books in foreign languages, and media for various handicapped groups. Most municipalities in Sweden are so small that it would not be practical for the local library to build up its own stock for groups with special needs. There are 284 municipalities in Sweden, of which 166 have fewer than 20.000 inhabitants. The other Scandinavian countries have even more, even smaller municipalities.

Both municipal libraries of different sizes and county libraries take the lending chain into account in their buying policy. In recent years there has been an effort in Sweden to determine in a more organized and systematic way than before, the different spheres of responsibility of municipal libraries and county libraries as regards various types of media. The proposal to develop such media supply plans was put forward in a state inquiry into public

libraries back in 1984. Plans have then been established in several counties. I shall return to this later.

Media for various groups of handicapped people

As regards media for various groups of handicapped people, the Scandinavian libraries are in the forefront of development. In Sweden some 3.000 talking books are produced annually. Everybody with a handicap which makes it hard to read a printed book is entitled to borrow a talking book from Swedish libraries. Apart from the visually handicapped, this applies to aphasics, the physically and the mentally handicapped and people with difficulties in reading and writing. Special talking books are produced and adapted to the needs of the mentally handicapped. For this group also easily read printed books have been produced for years in Sweden. Similar production has also begun or is planned in other Scandinavian countries. Videos with sign language for the deaf are beeing produced on an ever larger scale. Editions of specially adapted media are of necessity small and can therefore scarcely be produced without state aid. The production of large-print books is not subsidized in this way, with the result that little is produced.

Libraries in Scandinavia see it as one of their central tasks to offer adequate media to the handicapped. The county libraries play an important role here, since the target groups are generally small in the municipalities. In 1985 the county libraries received a state subsidy to build up their stocks of talking books. One condition for the subsidy was the elaboration of a media supply plan for talking books in the county. These plans thus exist in all 24 counties in Sweden. They have become models for similar plans for other types of media.

Video

A much discussed question in the libraries in Scandinavia is how we are to handle video. In this area we lag far behind development in England and the USA. In Scandinavia, Denmark and Finland have come further than Sweden. In Denmark a large number of libraries have reached an agreement with the State Film Centre. In Finland the Ministry of Education set up a committee in 1982 to consider what cultural policy the government should implement in the sphere of video. The committee concluded that the libraries were a suitable channel for video. Experiments were carried out in collaboration with the Finnish Broadcasting Corporation between 1985 and 1987. Video tapes could be either borrowed or viewed in the library.

The material was used extensively. Most popular were the classical feature films – both Finnish and foreign – and children's films. The lending of video tapes did not bring the library as many new borrowers as they had expected. It was the people who already used many of the other library services who also borrowed video tapes.

As a consequence of the experiment, an agreement has been concluded between the Finnish Broadcasting Corporation and the Association of Local Authorities concerning the provision of video. Some time ago a similar agreement was reached in Sweden as well. The video question in Finland has been discussed by Keijo Perälä in an article entitled "Video Material in Finnish Libraries" in Scandinavian Public Library Quarterly 1989, no 3. There is no doubt that video will play a very important role in the Scandinavian libraries as time goes on. There are however two obstacles. One is the intricate body of copyright rules. The other is that it is hard to build up a reasonable stock without financing it by charging for loans, and charging for loans is against the tradition of Scandinavian public libraries.

Bookstock management

The libraries have always striven to offer the best of all media. With the aim of putting together a good stock, the main interest has long been directed to the work of selection.

Librarians have kept track of what is published and bought books which get good reviews. We may have cared too little about what our shelves look like and how the media stock actually functions when it ends up on the shelves. Naturally, the expected demands has been considered in decisions about purchases, but now it is done more systematically.

A whole range of activities intended to investigate how the media stock functions have become common in our libraries. We produce statistics and investigate systematically which books and subjects are popular and which stand gathering dust on the shelves. We ask our borrowers through questionnaires and interviews whether they have found what they were looking for, or if they are dissatisfied and want something else.

Lena Skoglund has conducted a major survey of visitors to the specialist room for medicine, science, technology and economics at Gothenburg City Library. She observes that the visitors were not primarily looking for scholarly or theoretical books. What they wanted was, on the one hand, literature providing a basic survey of a subject, and on the other hand, practically oriented books giving help when theories are to be converted into practical action. The report also observes that the library is an important aid for self-instruction.

A group of county libraries and municipal libraries in Sweden are working out new measurement methods to develop and rationalize library service. One of the sources of inspiration has been Professor Nick Moore from Birmingham Polytechnic, who has been influential in starting the discussion about bookstock managemant in Sweden.

The aim to activate the media stock also has repercussions on the library buildings and their furnishings. It must be made easier for visitors to find what they are looking for. The material must be grouped and displayed in new ways to arouse interest and the environment must be constantly changed. The three-section library in Gütersloh has given much inspiration.

Service for immigrants

Library service for immigrants in Sweden have been built up according to the principles of equality, freedom of choice, and participation. This has been interpreted as meaning that there must be as many volumes per immigrant of literature in the various immigrant languages as there are volumes of Swedish literature per inhabitant. In this area too, we find a trend towards the adaptation of service to the real needs in each language group.

A project entitled "Once an immigrant – always an immigrant?" has recently been concluded at Malmö stadsbibliotek. The aim of the project was to investigate which media different language groups use and request. The surveying methods were both interviews and statistical measurements. The results show that newspapers, periodicals, music and video tapes are at least as important as books for preserving one's own culture and contacts with one's country of origin. Non-fiction is read much less than fiction, especially by immigrants who have been in Sweden for some years.

In many counties media supply plans have been elaborated for media in immigrant languages. In Malmöhus County, where I work, this means that the municipal libraries are responsible for subscribing to newspapers and periodicals, while the county library buys books which are sent out as deposits to the municipal libraries. The results of the project will lead to changes in our plan.

Conclusion

Choosing and buying media for knowledge and enjoyment, and presenting them to visitors – this is the core of library work. It is a matter of giving each visitor what he or she wants for his or her personal development and interests. I would like to conclude by quoting an advertisement from our famous airline company, Scandinavian Airlines System: "Perhaps you have already noticed that SAS has a world-wide drive for the ninities – to see in every customer a

person with his or her very own individual service demands". I find it excellent that SAS has discovered this and is advertising for staff with this orientation. It must be said, however, that this has long been natural for the libraries in Scandinavia.

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The Conflict between Copyright and Document Supply: Real or Imagined?

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Abstract
Document supply systems make documents more widely accessible than would otherwise be possible. Although this is sometimes achieved by lending, mostly copies are provided. This appears to conflict with the interests of the copyright owners but document supply is an extension of use rather than a substitute for purchase. Economic harm is not done to the publisher/author unless extra reward for extra use is seen as part of the publishing cycle. New technology may allow closer monitoring of copyright material but can also bring the danger of economic censorship. Librarians and copyright owners need to be clear about why document supply is so important in the research chain and not try to disrupt the flow of information on which both depend for their very existence.

Much of what has been written on copyright and document supply naturally focuses on the issue of photocopying for document supply services, but what is happening on the lending side in relation to authors' rights is both relevant and revealing. A number of countries have some form of Public Lending Right (PLR) which makes a payment to authors for loans of their works made from certain libraries. Public Lending Right is not necessarily part of copyright law because lending/borrowing is not usually an infringement of copyright but needs to be treated under other forms of law such as contract law. However, much of the thinking behind Public Lending Right has spilled over into the debate on copyright with confusing effects.

PLR has two main objectives: to reward the author for extra use of his works, and to compensate for loss of revenue because the books are borrowed by potential purchasers. The first of these criteria cannot be disputed: if the books are held in a library they are presumably used by the library's clients. Most PLR arrangements have a sampling system built into them to ensure that popular authors get some payment while those whose books rarely, if ever, leave the shelves get nothing. The argument that library books are used more than privately-owned books hardly needs putting, but the idea – that extra use should result in extra payment – needs careful study. So, although lending does not involve major copyright issues, it does set the scene for the debate on document copying and supply from remote sources.

There have been numerous debates on the rights and wrongs of document supply. In general the debate is mostly about copying articles from periodicals rather than large sections of books, as there is far less demand for the latter. It is tempting to talk of the two "sides" in this debate but this is a misleading and unhelpful concept. There are no "sides". A writer needs other written materials to stimulate his own ideas and what he writes is, in turn, used by others whose output he may once again use to further his own thinking. Authors need libraries, which need books, which need publishers, who need authors and so the circle goes round. This interdependence is at the centre of copyright. In the debate there are certain

common threads. Owners of copyrights see document supply as:

1) undermining publishers' sales;
2) depriving authors of financial benefit;
3) extending access at no extra cost;
4) allowing commercial and industrial interests to carry out profit-making research which brings no benefit to the author/publisher.

Users of copyright material see document supply as:

1) giving wider access;
2) improving intellectual activity;
3) economic use of resources.

By examining these points of view it may be possible to see a way through the conflicting arguments and positions.

The owners' view

Undermining sales

The argument is fairly simple to understand. If a library can obtain a copy of an article or part or all of a copyrighted work from a remote source, then it will not buy that document. Thus the making of the copy deprives the publisher/author of income because sales are lost. On the surface this seems very plausible,[1] but a number of studies have been carried out which have never found any correlation between an efficient document supply system and reduction in library acquisitions budgets.[2,3,4] Libraries tend to buy as much as they can, as possession is far better than remote access. It improves user satisfaction, enhances the library's status and is far more effective in staff time and labour than making frequent requests elsewhere. Remote access to materials is seen by libraries as a necessity for those documents which it cannot justify owning itself or to which it cannot have access directly because of lack of professional skills, political barriers or other circumstances beyond its own control. In short, libraries would prefer not to use document delivery systems at all in a perfect world. Document delivery is a second-best for libraries and their clients.

Although there is no correlation between a good document supply system and cuts in acquisition, the converse is entirely true, in other words there is a direct correlation between cuts in acquisitions practice and a good document supply system. Libraries in almost all parts of the world are under severe financial pressure, with limited funds to carry out a wide range of functions. In order to support a core acquisitions programme of essential materials for its users, a library will more readily cut out material on the fringe of its needs if such material can be obtained by a good document supply system. A decision to cancel will be affected by the availability of the title elsewhere and its accessibility. A good document supply network will change the content of the list of titles to be cancelled but not the number or cost of them. Serials consume an ever larger proportion of acquisitions budgets and limited financial resources can be more rationally spent with document supply support. So a good document supply service will influence what is cut but not how much is cut.

Many libraries keep detailed statistics to show which journal titles are requested most from remote sources. Although the figures will vary from institution to institution the general principle is that if a title is requested more than a given number of times in a specified timespan then that title should be subscribed to because it is cheaper, more convenient and more satisfactory to clients if the title is readily accessible within the library.

Depriving authors of income

This argument carries very little weight. Authors of books are usually paid either by a lump sum or by royalties and, as already pointed out, lending (let alone interlending) has not been shown to be a substitute for purchase. Some authors do, of course, get some payments through PLR anyway. Authors of articles in periodicals rarely receive payment, and, if they do, the sums are not large and depend only indirectly on sales of the journal concerned. Some reproduction rights organisations are moving towards a system of payment to authors but this depends on the development of article identifiers such as those being research by ADONIS and DOCMATCH to enable payments to be made efficiently. Some authors even have to pay to have their papers published. There is little evidence to claim loss of income for the creator of the copyrighted material.

Reward according to use

That document supply increases use is certainly true. The very essence of document supply from remote sources is to give access to materials which the reader cannot consult in his own library. The criticism is that this is extra use of additional materials at no cost to the user or the library requesting the material. This is certainly untrue. Document supply is an expensive business and libraries need to set aside considerable sums of money to carry it out. Even libraries fail to realise this adequately as a recent study has shown that only 13 % of libraries have a separate budget for interlending purposes. Expenditure goes on auxiliary services such as postage and packing, staffing and record-keeping, but some publishers feel that this extra money should go to the copyright owner. Here we enter the difficult area of the nature of property.

Should the copyright owner be paid according to the intrinsic worth of his product or according to the use it receives? With other objects, such as clothes, machinery or furniture, it is possible to estimate that an object will continue to function for a predetermined period given a set amount of wear and tear. In this sense the manufacturer can estimate life-expectancy and cost the item accordingly in the expectation that a replacement will need to be bought in a given number of years. This is not possible for information or even the documents which contain it as they can be photocopied almost limitlessly without deteriorating beyond the point of being used, given the right treatment. So, if we accept the principle that remuneration should be linked to use (as in most PLR exercises) there should be some payment to the copyright owner for document supply activities. But what should be the basis for calculating the payment? Document supply as a percentage of the total use of any document in a collection is very small indeed. Estimates of use of document supply and interlending by public libraries put this at around no more than 3 % of the total circulation figures.[6] In the USA it is estimated that interlending constitutes only 0.43 % of all loans from public libraries.[7] The recent ICSTI study of biomedical journals in the major document supply centres[8] should that at the top end of use any one journal article might be used no more than twice and at the bottom end of the top-ranking journals usage is perhaps 0.2 uses per article. As this figure relates to articles in journals satisfying the top 20 % of demand only, actual use of articles in journals lower down the ranking table will be negligible. Therefore, if payment is to be made according to use, the level of meaningful remuneration will be very small and needs to be calculated using a fairly complex sampling system. In the UK there is no provision for payment by users of document supply services as it is assumed that the copies made come within the fair dealing and library regulations sections of the legislation. In the USA the CONTU guidelines recognise that payment should be made through the Copyright Clearance Center if more than five copies of articles in any journal title are requested from the last five years. This provides an element of payment for use above a certain level. Thus extra reward

for extra use is recognised by some countries but not others.

However, to follow the "payment by use" path is a dangerous solution. A position could be reached where only those articles which an editor judged would be well-read and heavily demanded through document supply services ever reached the printed page. These would be revenue-earners; others would have to be sacrificed as "passengers". This could lead to a situation where journals published only well-tried material, and new ideas, which would attract little use and therefore little revenue, would not be published. This kind of economic censorship needs to be viewed with considerable anxiety by researchers and creators.

Reward according to value

This is perhaps the area which has caused the greatest dispute in the last few years. The argument is not so much about how much copyright is done but the purpose for which it is done. Copyright owners argue that commercial and industrial libraries obtain copies of their documents and then use the information to create considerable wealth through their commercial activities. This argument is not about violation of copyright as such but is bound up with the question of the exploitation of intellectual property generally. If somebody invents something, then by taking the appropriate steps, the inventor can reap some benefits from it for a given number of years. By analogy, a writer ought to benefit from his writing for a limited time as well. But the very nature of publication requires that information be made publicly available, and, once available, anyone has the facility to use the information. Unlike a piece of machinery, there is no method of preventing the application of the information to other uses and it being exploited. This is one of the risks of being an author of any kind and the only real remedy under copyright law is resorting to sections relating to originality. There is no protection for ideas and certainly not for those whose ideas generate other people's minds. Therefore to introduce any element of discrimination against particular sectors because of the use to which they may put the information in any particular publication is alien to the concepts of copyright. In any event, prevention or charging for document supply for commercial use could only be justified at all if similar differential charges were made for publications when sold to such organisations in the first place. If the author reaps no benefit because his work is sold to industry rather than to the public library then why should different criteria be applied when photocopies of documents are supplied? We are in danger of introducing a sort of "droit de suite" into document supply, depending on the add-on value that is attracted by published information when what it contains is exploited for commercial ends.

The argument for excluding commercial concerns from having the same access to document supply as other libraries has been a long and bitter one in the UK. The copyright owners fought long and hard to exclude commerce and industry from this privilege but the Government were persuaded by the arguments in favour of document supply as a part of the information network. However, in other countries things have gone differently.

There are few signs of actual moves to prohibit supply: rather the trend is towards allowing supply in return for a fee, usually organised through a collecting society. Basically, the problem is that copyright owners cannot decide whether they want to claim recompense for income lost through the supposed loss of subscriptions and purchase or a share in extra income generated as a result of their intellectual activity. Only when this dilemma of reward by use or worth is resolved will there be forward movement to resolve the apparent conflicts between creators and users.

The user's view

Freedom of access

Document supply is a basic, although comparatively small, part of the freedom of access to information to which librarians and information scientists are so dedicated. The fact that a

particular document is not available in a given geographical area should not prevent the person wanting it from obtaining it. This is part of the basic work of the IFLA Programme for Universal Availability of Publications (UAP).[9] Of course, there are other ways of consulting a document such as purchase, gift or travelling to another library, but these are not always possible, as must be obvious. Therefore documents must be moved to the user. To save moving the actual document and inconveniencing other users photocopying is used instead, where this is appropriate. Some would argue that as photocopying is only a surrogate for lending there is no problem with copyright, but this is clearly untrue, as a document can be copied many more times than it can be moved about from place to place.

It is rarely argued that such freedom of access should be denied, only that the copyright owner should benefit from this additional access. This has already been argued, but the information community still equates "freedom", with 'free'. Many copyright owners are happy to have their works used in document supply systems at a price. The argument is, however, that library services are usually free and the client should not be penalised because the library does not have what he wants, nor should the library be unnecessarily burdened because its clients have more specialised needs than it could reasonably anticipate. This is not seen as library funds being diverted away from the copyright owner's pocket, but rather as spreading resources to meet the needs of the maximum number of clients. It is argued that once a document becomes popular enough, even though it might normally be outside a library's purchasing profile, it will nevertheless be bought. Thus document supply actually becomes a good advertisement for the publisher.

Improved intellectual activity

Document supply enables scholars and researchers and those working at the frontiers of innovation to push their work even further because they have access to a wider range of materials than would otherwise be possible. Interlending allows this, but document supply speeds up the process and makes more material available to more people at any given time. It is also less of a financial burden on libraries than lending, because of the lower transmission charges, less record-keeping and no return postage to be paid. It also removes the time constraints from the client, as the photocopy is usally for retention rather than return. All these factors make document supply a more attractive choice. It also means that intellectual output from the writing community is improved in both quality and quantity and thereby benefits the publishers who need authors to carry out their activities.

Economic use of resources

In an age of severe financial constraint, libraries must use what resources they have to the best advantage of their clients. This means trying to provide as wide a range of materials as possible at the best possible price. Clearly not all libraries can buy everything their clients need, so resource-sharing is essential and document supply is one of the most efficient ways of giving access to the maximum amount of required material. Clients do not see any difference between a document on site and one hundreds of miles away; if they need it, they want it where they are as quickly as possible. Researchers view the world as their oyster and all collections should be available for their needs. Research grants no longer allow the travel that was once common for researchers, neither little option but to reqeust that material be brought to them. Even so, they are rarely in a position to pay the cost to the library.

Use, not abuse

Document supply is not, in general, an abuse of copyrighted materials. It is an attempt to make products more widely available to those who could not otherwise afford them or justify

their purchase. The basic problem of the exploitation of intellectual content of the documents needs to be tackled, not through copyright law, but through other channels of intellectual property law. Copyright owners are anxious that their products should be used. The library community has a role in ensuring that these products are not abused.

Technological developments

With the advent of new technological processes in document supply, it is tempting to think that some of these issues will become more imagined than real. With the spread of online access to full-text documents, bibliographic searching linked to document supply and huge quantities of data now available on CD-ROMs, it would seem reasonable to suppose that the copyright owners now have all the technology they need to control access and charge for it whenever they see fit. On the other hand, in return for the appropriate payment, new technology with allow libraries access to materials which were previously almost beyond their reach except through slow and cumbersome processes. But copyright law is there to maintain the balance, and the mere existence of mechanisms may not be the best solution to the protection and access issues. Certainly there has been a move in legislation to be more pragmatic[10], but, legislation is often a long way behind technology. Of the more straightforward issues, telefacsimile is one that needs careful attention. Many laws allow a copy to be made of a document for private study or research. But, with existing technology using Group III fax machines, in order to transmit a copy of a journal article or page of a book it is first necessary to make a photocopy and then use that photocopy for transmission by placing it in the feed of the machine. This copy was not made for private study or research but to allow transmission of the document to someone else. When the machine transmits the document it digitises it (a copy in the legal sense) and then copies it again when the digital signals are retransformed into a paper copy at the other end. Three copies at least have been made of the document. The wise librarian will also make a photocopy of the document received as latest experience shows that faxed documents fade quite rapidly. The problems will not be solved with the introduction of Group IV fax either. Although the need to make a copy before transmitting it will be abolished, the machines will have the ability to transmit to several different receptors simultaneously (multiple copying) and also store text and forward it at a later time. Similarly, recipients will have the ability to store and print out as and when required. All of this is outside normal copyright allowances.

The growth of audiovisual materials in libraries is a phenomenon of the last fifteen years. Originally simply teaching aids, they have now moved into the realm of original documents in their own right and carry information not available elsewhere, for example the BBC Domesday Project, which gives a picture of Britain in words and images on a videodisc and contains much original material. Under some legislation there is no facility for copying even small parts of such 'documents', yet is there really any difference in essence between information transmitted on the printed page or through another medium? The issues raised by electronic publishing and archiving are far more complex. They have been dealt with in some detail in connection with the Knowledge Warehouse experiment.[11] The issues include the fact that there are separate copyrights in any copyright work itself and in the electronic form in which it is stored; the ownership of the copyright in any database in which it is stored as a compilation and the copyright in any adaptation of the work made by the electronic publishers with the agreement of the original copyright owner as a 'value-added' product. How many copyrights might be infringed by a document supply service is not clear, but it is almost certainly more than one. Listening would seem to be the obvious answer, but this might give the copyright owners more control over their products than if they issued them in printed form, and what moral justification there would be for that is hard to say.

Just as much a problem is the arrival of the CD-ROM and the ADONIS Project. The technology is present in this project to allow all use of journal articles stored in it to be monitored minutely. This can be a very useful management tool for the publisher and librarian but it will also have the potential for editors to decide which articles should be retained in future discs, which topics are currently popular and which material should not, therefore, be accepted for publication because it is not heavily used and so, potentially, not a revenue-earner. The ADONIS software would allow a pre-use fee to be imposed for all users within a library, let alone use for document supply purposes. Again the balance between good management techniques and the spread of information must be maintained.

Finally, document supply by satellite is no mere fiction, as the APOLLO trials have shown. There are separate copyrights subsisting in "up-leg" (that is, from the transmitter to the satellite) the down-leg" (that is, the signal from the satellite to the receiver). Who owns the copyrights in the reproduced document, how legal it was to transmit it and who would be responsible for any infringement has not yet been decided.

Conclusion

Document supply and interlending will not go away. Far from it, it is a growing industry. The legal, economic and moral status needs to be clearly understood by copyright owners and users alike. Much emotional energy has been generated over the rights and wrongs of document supply and copyright law. Whilst new technology will enable us to keep track of what is done, it poses more problems than it solves in the legal field. A right understanding of the aspirations of creators and users will do much to allow the industry to see a way forward as an essential part of the dissemination of knowledge.

The conflict between document supply and copyright exists only if the owners are determined to press the PLR concept of additional reward for additional use. Otherwise the economics of interlending and document supply make it plain that this is no threat to the sales of copyright material. If a new philosophy of reward for use in introduced then, again there need be no threat. The philosophy is valid only if applied to all library activity and document supply is a small part of this. If clients and/or libraries must pay extra just to use materials then document supply will go along with this. Either way there is no threat. The conflict is more imagined than real.

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ISDS and Union Catalogues

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Abstract
The International Serial Data System (ISDS) maintains an international database meant for registration, unique identification and standard numbering of serials. An important share of Union Catalogues management deals with the same needs.

After having presented the organizational structures and working procedures of ISDS that account for the content of ISDS database, this paper attempts to define the good usage of ISDS by Union Catalogues.

Without evading issues that could introduce a new topic such as: "Changing role of ISDS because of Union Catalogues?", the authority file and bibliographic reserve ISDS maintains are assets that Union Catalogues cannot use as a fundamental basis for their management.

The purpose of the present paper is neither to present Union Catalogues nor to explain what International Serial Data System (ISDS) is but to try and define what could be and increasingly more often is, the good usage of ISDS by Union Catalogues. It will nevertheless be necessary to make a short introduction to ISDS, as a reminder and because the objectives and operating structures of the network are precisely what makes ISDS so useful to Union Catalogues. Then the advantages of ISDS will be presented and finally comments concerning practical issues.

I. BACKGROUND: A RAPID INTRODUCTION TO ISDS:

a. What's the purpose?

ISDS originated as a part of UNISIST from the recommendation that "an International registry of scientific periodicals should be established as a basis of a system for the normalization of the citations of the journal literature of science and technology".

The limitation to scientific and technological serials was soon abandonned and ISDS organized to establish an international registry for the unique identification of serial titles based upon the assignment of an identifying code (the International Standard Serial Number: ISSN) permanently linked to a unique title for each serial (the key title) together with bibliographic information to allow unequivocal identification of the serial and links to related titles (earlier, later titles; merging, splitting of serials, other edition statements...).

b. How does it work?

ISDS is an intergovernmental organization. It functions as a network of operational Centres: an International Centre located in Paris and a number of National Centres located in the various countries.

The International Centre is an autonomous institution established in Paris on the basis of an agreement signed by UNESCO and the French Government. Its statutes ratified in 1976 lay down the formal organizational structure of the system.

The responsibility for the establishment of National Centres rests with the national governments. When a country wishes to participate in ISDS, an official notification should emanate from its government, which announces its accession to the statutes.

In two parts of the world, National Centres have established a Regional Centre to coordinate some of their activities. There are now over 50 ISDS National Centres in all continents, dealing with serials in all possible languages and alphabets.

National Centres have sole responsibility for assigning ISSN to serials published in their respective countries and for establishing and maintaining the corresponding records.

The International Centre is responsible both for processing serials published by international organizations or in countries where no National Centre yet exists and for organizing common working procedures and checking and distributing the information produced by the network.

All ISSN assignments and the corresponding ISDS records are input in the international data base which is checked, controlled and maintained by the International Centres. This dual structure ensures both the "firsthand" processing at a national level and control of serial publications and the coherence of the system as a whole at an international level.

c. The ISDS Database

The function of ISDS is the identification, registration and numbering of serial publications. ISDS assigns an ISSN to serials regardless of their country of publication, language, contents or status.

The ISSN is an eight-digit code (including a check digit) according to international standard ISO 3297. Throughout the very diverse serial literature, its aim is to unambiguously individualize and identify each specific serial title.

When an ISSN is assigned, a corresponding bibliographic record is simultaneously created. The format for the ISDS record includes 30 data elements, some of which are mandatory, some mandatory when applicable, and some optional.

The two key elements of the ISDS records are: the ISSN and the key-title. The key-title is the title of the publication as ISDS standardizes it to make it unique. Most often the key-title is the title of the serial as it appears on the publication if there is no ambiguity, or sometimes the key-title is the title under which the serial designates itself, to which ISDS adds qualifying information in order to distiguish it from otherwise identical titles.

The ISSN of a serial publication and its key-title are inseparably linked: this is a fundamental rule of ISDS.

In case where the title changes sufficiently to warrant creating a new key-title, a new ISSN is assigned and a new record is established. Both records remain available, and a cross-reference is established through linking fields.

The abbreviated key-title is another essential identifying data element in the ISDS format. It is etablished in accordance with the international rules stated in ISO 4 and the List of Serial Title Word Abbreviations, for which ISDS is the maintenance agency. In defining the other ISDS data elements, particular care was taken to ensure compatibility with the International Standard Bibliographic Description for Serials: ISBD(S).

The ISDS data base contains all bibliographic records created by the system. The data base contains over 500.000 records and the annual growth is approximately 40.000 new records. Moreover, a continuous updating process results in the introduction of approximately 60.000 changes a year undergone by the publications.

II. WHAT ARE THE ADVANTAGES OF ISDS FOR UNION CATALOGUES?: MATTERS OF PRINCIPLE:

a. A unique identifier

Mainly, ISDS is an authority file for unique identification of serial titles, based on ISSN and a reserve of related bibliographic records.

Union Catalogues are meant for many. The main advantage of ISDS is that it sets up a common language for unique and unmistakable identification of titles. Union Catalogues are the results of the common care in different institutions to share their resources. Either at the early stage of establishing the Union Catalogues from various cataloguing institutions or in the final stage when the user wants to localize the serial he needs, there is an obvious necessity for a common name for a given serial. This is common sense for any Union Catalogue, it becomes of even greater importance when Union Catalogues are multinational. We are all aware that national cataloguing practices are not always strictly identical and even if it was so, who could, without international control be sure that a title which is unique in one's country does not exist in the same form in a different country?

Even national Union Catalogues, if they want to be used outside their national borders, which is increasingly more often the case, are concerned. The first advantage is obvious whatever the media of the Union Catalogues. It applies to printed Union Catalogues as much as Union Catalogues using new technologies.

b. Computer systems

If we take it for granted that unique identification is the only way when libraries want to share resources, this identification process could be of any sort:

- full text: a complete descriptive record according to strictly common rules
- a precise and formalized sequence of words: key-title or abbreviated key-title
- a numerical code: the ISSN

The advantages of ISSN in a computer system are many when creating, organizing and maintaining files for a Union Catalogue

b.1 Organization of the files:

ISSN is a code that can easily and unmistakably be the key wherever a specific serial needs to be cited or retrieved.

- it offers opportunity to organize the data in different files: one for bibliograpic descriptions
  one for holding statements
- it offers opportunity to link serials in a relational way. ISSN in a linking field will bridge to additional information in other records without repeating them.

It means security, sparing storage space, possibility to process sub-files and this can be taken into account from the beginning of the organization of the computer system.

b.2 Updating process for holding statements:

The possiblity to distinctly store bibliographic descriptions and holding statements facilitate updating. In a Union Catalogue, even though serial literature undergoes more changes than monographs, the holding statements are less stable than the bibliographic records because of

new libraries joining the system and changes in subscription policies, for example.

For the participating library, it allows sending the ISSN and holding statements instead of sending a complete form to identify and describe the serial title. For the Union Catalogue management, in a parallel way, it means processing less information.

Once the information is processed, it also allows the Union Catalogues to distribute information on holding statements only without sending the related records. The ISSN allows matching with the information contained in the user's internal database.

b.3 Telecommunications:
Union Catalogues are meant for inter-library loan (ILL). If the user sends a request by mail, he will appreciate a simplified form rather than a full description of the title in order to be sure to obtain what he wants.

This is even truer when, as it is increasingly more often the case, ILL is based on telecom possibilities. ISSN means less information to key, less information to transmit, less information to process. And the security of speaking unequivocally the same language (compared to different ways of presenting titles, corporate bodies or transliteration schemes, which if not strictly identical, a computer will not recognize).

c. A bibliographic reserve
In addition to the advantages of ISSN and key-titles, ISDS database offers the 500.000 related records. Are Union Catalogues able to create 500.000 records when they are established and to maintain 40.000 creations and 60.000 corrections each year? Do they have the resources to catalogue in a short time (because Union Catalogues are needed and impatiently expected) the necessary records to create their original database and to track afterwards information about creation, splitting, merging, cessation of publication, changes in title... all over the world.

Moreover the dual structure of ISDS (National Centres and International Centre) guarantee the cataloguing:

- the serial publications are catalogued at a local level and the professionals in the country are best placed to follow the creation and history of the publication, to suggest key-titles and abbreviated key-titles and catalogue in their own language, or to classify according to the content.
- through the International Centre, the centralized processing of data guarantees, as far as possible, at least in terms of structure and uniqueness, the homogeneity and cohesion of the data.

Lastly, another advantage is due to the ISDS working procedures. ISDS is an open system. In addition to regular assignments, ISDS Centre assign ISSN or enter corrections, on requests from users when they are documented.

III. LIVING WITH ISDS: PRACTICAL ISSUES

As a consequence to what was said above we may assert that Union Catalogues derive many advantages from ISDS. It is nevertheless necessary to list a few practical issues that the users and ISDS in their common venture will face at the different steps of establishing and maintaining a Union Catalogue.

a. **Creating a Union Catalogue database:**
Union Catalogues choose to use ISDS records or some elements derived from them. If they decide to use integral ISDS records as such, they avoid the need for a common cataloguing structure: human resources, cataloguing software, common rules... The Union Catalogues will be sure that all records have the same structure, and are updated without extra-work... They will then be sure to concentrate on managing holding statements. If the Union Catalogue chooses to use only data from the ISDS records or to enrich the ISDS records with additional data, the following remarks apply all the same.

When creating the Union Catalogue database, there are two possibilities:

- either the Union Catalogue did not exist beforehand, and ISDS is a huge reserve to set up the system and have at the user's disposal bibliographic records to which holding statements are added without cataloguing delays and risks of duplicates.
- or the Union Catalogue existed in a form that is no longer satisfactory: in that case, the difficulty arises from the necessary matching of former data with the new system. This problem is to be faced in any case (with or without ISDS). The process will take more time but ISDS there too can be a help because of unique identification.

The second aspect deals with coverage:

- Historical coverage:
  ISDS was meant for systematic registration but started in the 1970s. If the Union Catalogues deal with recent collections, the coverage will be much more satisfactory than in the case of large historical collections. The question of registrating dead serials in ISDS network is not entirely solved because of the extra load of work it imposes on ISDS Centres that are organized for current registration mainly. ISSN up to now have been assigned on requests to dead serials everytime it was possible.

- Subject coverage:
  The Union Catalogues are either multidisciplinary or specialized. The ISDS database is multidisciplinary. Specialized Union Catalogues will sometimes find fewer answers than general ones depending on the speciality, the weight of dead serials will be heavier or titles may come from countries with no ISDS centres where serial titles are not systematically registered ... Requests cause more delay.

In short, some other minor questions may arise because Union Catalogues and ISDS do not apply strictly the same coverage policy:

- definition of a serial may be at slight variance
- dead serials are second priority for ISDS centres: a title may exist in the Union Catalogue, which is dead and was issued twice fifty years ago. Is it a priority for ISDS?
- minor titles of local interest may not be registered systematically by an ISDS centre

There is no standard solution, these points are usually solved by assignment on requests but cause delay.

b. Maintaining the Union Catalogue database:
That is where the original enthusiasm due to the rapidity of creating the database from an available reserve sometimes fades away because there may be a difference in the working procedures and pace between Union Catalogues and ISDS.

- Amendments to existing records:
  In a large majority they are a plus to the database but sometimes may be embarrassing: in the case of a change of title for example when ISDS assigns a new ISSN and key title. The criteria to decide that the change is significant may be at variance and Union Catalogue users may not be aware of it when they want to match their holdings with a former form of title. On the contrary, concerning dead serials, ISDS Centres generally limit assignment to one form of the title and make one related record and will consider other titles as variant titles.

  Other amendments originate form the pre-history of ISDS database: corrections are still going on concerning ISSN that were assigned in Ulrich's or New Serial Titles and are validated (or not) when encountered. Duplicates, errors made by publishers when printing the ISSN on the serial may imply discrepancies and cancellations of wrongly assigned ISSN and though this very seldom happens in matter of percentage, it is always a shock for a Union Catalogue to see disappear a record related to holdings. A good follow-up of cross-references between cancelled and valid ISSN should greatly diminish the problem.

- Creation of missing records:
  Usually the more used and successful a Union Catalogue is, the more libraries join in. After a time, the missing records to be added (or the existing records to be mended) are fewer but more difficult to handle because they are rare or dead titles. The creation is not the result of systematic assignment but implies a request: transmission to the concerned ISDS Centre, difficulty to find a collection there from which to register the title, procedure to update the database... cause unavoidable delay.

- Creation of new records:
  In the previous case, delays may not easily be compressed. In the case of new records if there may be some waiting at the Union Catalogues, delays should be overcome.

Speeding up the updating process depends on:

- ISDS Centres situation: what are their human and technical resources? Are publishers aware of the pre-assignment? Do they inform the Centre? How does the Centre transmit the data to the International Centre: worksheets or magnetic tapes?
- International Centre abilities to process and distribute the data: computer system, facilities of external liaison, availability of human resources...
- Union Catalogue procedures: how does the Union Catalogue use the data received from ISDS? How often does it process it?...

The possible difficulties listed here above should not discourage the user. It is only meant to draw a realistic picture. Users are offered a lot but they expect more and everyday problems because they remain marginal should not cause one to overlook the immense resources found in ISDS.

IV. CONCLUSION: A SUCCESSFUL UNION?

ISDS is an authority file, rich of 500.000 records made unmistakably unique and systematically growing and improving thanks to an international network of operational Centres. It is meant to be a common language!

Union Catalogues may consider ISDS records answer their needs because it saves resources that can be better applied to specific Union Catalogues tasks.

Union Catalogues may consider they need enriched records because of specific needs. With ISDS, they are sure of an authority record and then can spend resources on additional descriptions that ISDS will not provide because it is not its purpose.

Union Catalogues may use any type of different information. ISSN and key-titles will remain the core of a common language for a more certain identification.

In conclusion, I would say that though some difficulties can hardly be avoided, the advantages of ISDS for Union Catalogues far exceed slight discrepancies or delays. Union Catalogues are exacting users: they expect records to be available as soon as they need them, they have large collections to register and suggest many creations or corrections. In other words, they have the same objective as we have: to make ISDS database as comprehensive and as accurate as possible. If I may venture an additional conclusion, I would say Union Catalogues are good for ISDS.

NOSP revisited
The changing roles of the Nordic Union Catalogue of Serials

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Abstract
NOSP, the Nordic Union Catalogue of Serials uses ISDS bibliographic data and combines this data with the holdings reported by the five Nordic union catalogues of serials. ISSN is the link between the bibliographic record and the holdings. Only titles with an ISSN are registered. 33% of the titles registered in NOSP are only held in one library of the 676 libraries reporting to NOSP. A directory of the reporting libraries is produced each year in hard copy or in machine-readable form. NOSP is available on microfiche or on tape. It is also available online in four of the five Nordic countries. The online version was the big challenge of the 1980'ies and it is suggested that the next technological change would be direct online ordering.

Background
NOSP, which stands for Nordisk Samkatalog over Periodica, is a joint venture, using International Serials Data System (ISDS) to produce a union catalogue of foreign serials in all five Scandinavian countries: Denmark, Finland, Iceland, Norway and Sweden. NOSP receives financial support from NORDINFO, The Nordic Council for Scientific Information and Research Libraries.

NOSP was the subject of many committees and reports for more than twenty years in the Scandinavian library community owing to the long felt need for a union list of serials for interlending purposes. The possibility to use machine-readable data and a financial grant from NORDINFO in 1977 initiated the work. A steering committee with one representative from each of the participating countries was appointed. It was decided that the coordinating work in connection with the establishment of NOSP should take place at the University Library of Helsinki, Finland.

Use of machine-readable bibliographic information was essential for the project as experiments had shown that the different use of cataloguing rules in the Scandinavian countries was a hurdle that could only be overcome by use of machine-readable data produced elsewhere. ISDS was chosen for the following reasons:

1. ISDS is an international system that uses a MARC format as input format and ISO 2709–1981, Documentation-Format for bibliographic information interchange on magnetic tape, as the exchange format.
2. The International Standard Serial Number (ISSN) assigned in conjunction with the key-title could provide a link between data bases.
3. The Scandinavian countries take actively part in ISDS and are represented on the ISDS Governing Board, at the General Assembly and at International Meetings of ISDS Directors.

4. All members of ISDS receive records in machine-readable form free of charge.

Reporting

It was decided to use *ISSN* as the link between the bibliographic record and the holdings. This means in fact that the reporting union catalogues from the five Nordic countries send a tape consisting of ISSN, library identification code, and the holdings. The tape consists of records with a fixed number of characters (44 characters for each record). It must be borne in mind that the fixed field format was decided upon in 1977, when use of tapes for transferring records between libraries in the Nordic countries was not common. The format has been subject to criticism because it does not conform to the standards used in most database systems at present, and the question is being discussed by the NOSP steering group. But a change of format does mean a change of programmes everywhere.

The *library identifying code* consists of four characters: x = country code – numerical, YYY = library code – numerical. It was decided to use numericals when reporting to NOSP but to change those numericals to the standard abbreviated forms of the libraries in question when producing the union catalogue. The code of The of Royal Library (Det kongelige Bibliotek) when reporting in machine-readable form to NOSP is 0060, where the first zero means Denmark but on the microfiche which was chosen as the medium for output the standard form used in Denmark DK: K is shown.

This way of solving the problems of library identifying codes in the Nordic countries was excellent and it paved the way for a new product *NOSP library directory* in hard copy produced since 1978. This is a very handy publication not only for those using NOSP as a union catalogue but also for everybody else interested in the different librarie in the Nordic countries. It contains information on 676 Nordic libraries, and is updated and published annually by the NOSP-centre. It is produced by the help of a microcomputer since 1986, and it is also available in machine-readable form.

Bibliographic record

The bibliographic record of NOSP is based on International Serials Data System (ISDS). NOSP was the first union catalogue using the ISDS records. By now there are about 20 union catalogues operating in more or less the same way. As ISDS is represented on the panel today I will not give any information on ISDS, but I would like to say that without the *support of ISDS* it would not have been possible to realize the dream of a Nordic union catalogue of serials.

There has been problems in using ISDS bibliographic records and I suppose there still are some problems, but we have always somehow managed to solve them in cooperation with ISDS. I will just mention some of them. *Only titles with an ISSN* are registered in NOSP as the linking element between the bibliographic record and the holdings of each library is the ISSN, and this means of course that a speedy registration at national ISDS centres is vital for NOSP. Thirteen ISDS centres now report in machine-readable form to the International Centre but this was not the case twelve years ago when we started using ISDS records.

Incompatibility between cataloguing rules for the national bibliography and ISDS rules has been another source of irritation, but this problem is also diminishing as the economic constraint is forcing the library community to solve these problems in order to achieve improved access to information.

ISSN's without ISDS bibliographic record has posed another problem which has been partly solved in close cooperation with IC by producing a supplement in 1980 using non-ISDS records. This supplement was incorporated in the main alphabetical file of the microfiche in 1984 in accordance with users' requests.

A *NOSP record* on the microfiche is a reduced ISDS record and consists of the following data elements: key title with the assigned ISSN, parallel titles, publisher, place of publication, data of first and last issue published. References are made to former and to successive titles and from issuing bodies.

Holdings

Holdings are reported in fixed fields on the tapes produced by the five Nordic union catalogues. The reporting and displaying of the serial holdings is at a summarized, condensed level. It is possible to report an ISSN and a library identification code without any holdings to report that the title is available. This is done by using two different transaction codes, one for reporting holdings, one for reporting availability.

Call number (shelf location) is not included, but it is possible to report composite holdings by numbering the sets when reporting. Incomplete holdings may be reported by using the code "L" which stands for "luckor", Swedish for gaps. If a serial is received but only retained for a limited period of time, it may be reported by using another code: "X". Both codes are displayed on the NOSP microfiche, which was the medium chosen for the production of the union catalogue.

Statistics

To sum up use of ISDS bibliographic records in connection with holdings data reported to the five Nordic union catalogues made it possible to coordinate and update serials information for the production of NOSP. The cumulated NOSP-mikro 89:2 consists of 133.200 titles with 527.000 holdings reported. The ISDS data base consists of 445.300 titles. Of the 133.200 titles reported to NOSP, 45.000 are only held in one Nordic library, that is 33% of the titles are unique.

Changes in the roles of NOSP

The first five years of NOSP were devoted to the *establishment* of the union catalogue and to getting the mechanisms for reporting by making use of existing resources to work. There was a strong competition from established Nordic subject oriented union lists of serials. These were often started by an idealistic group of librarians working in special libraries. We tried to solve the problem by extracting classified ISDS records from the ISDS database but this turned out to be a bad solution for two reasons. Many of the ISDS records lacked classification codes – the percentage of classified records in the ISDS database is now 80%. – The second and most important reason was that a close analysis of the union lists showed that a collection of serials in a special library consists of many different subjects and it is impossible to make a subject profile that would cover the whole collection. The only way of producing union lists of serials in special libraries by using NOSP would be by extracting the titles by using the library identifying code and this is only possible if all the special libraries concerned report to their national union catalogue which was not always the case.

User evaluations showed that NOSP was not comprehensive enough and the lack of titles was a source of "concern". We tried to solve the problems by producing a supplement using other sources than ISDS for bibliographic data in cooperation with ISDS. We asked the participating libraries to take photo-copies of titlepages of serials did not have an ISSN and sent those to the International Centre or to the national centres. A joint meeting of staff from Nordic national ISDS centres and from the union catalogues was arranged in 1985 and another one took place in 1988. The first meeting was perhaps not as successful as the second in solving problems. Co-operation with the libraries and the ISDS centres is now established standard practice in the union catalogues and in the NOSP centre.

The most important change in the role of NOSP was the *online version*, which was established in 1981 in Helsinki for a limited period of time. The main political issue in 1982 was to decide if the database should be central or distributed. It was solved by the Swedes loading a test tape in the LIBRIS database in December 1982. It was obvious that it was great advantage for verification of ISSN. Norway felt that NOSP data was more important than ISDS and bought tapes from NOSP, including the ISDS bibliographic data in 1985. Norway later decided to make ISDS bibliographic data available online, which made it possible to find ISSN and add those found to the records in the Norwegian union catalogue of serials, SAMKAT PER. Finland put NOSP online in 1987, and Denmark, after a long political fight, finally decided to do so as well, after pressure from librarians working in interlending departments of research libraries.

The online versions of NOSP data differ, which was to be expected but use of NOSP data is the same everywhere in the Nordic countries. It is used mainly for *interlending purposes* although it also has potential for shared information on the acquisition of new titles and intended cancellations. It could also be used for *collection analysis* in terms of strength and overlap of titles and this might be a new role of NOSP as new statistical programmes are developed.

The online versions of NOSP did not affect the sale of the microfiche version in a considerable degree, but it has to be kept in mind that the microfiche version holds more information than the online version that is bibliographic records from other sources than ISDS. The NOSP steering group is looking into the possibility of producing a *CD–ROM* version, but no decision has been taken so far.

Future developments

The librarians in the Nordic countries are now able to trace the location of serial holdings in NOSP either on microfiche or online. The next step is to develop online ordering service via PC's and networks. This is already possible to some extent in Denmark and this facility should be extended to the other online versions in the Nordic countries. A user-friendly interface developed by two Nordic firms (CRI and AXION) called IANI (Intelligent Access to Nordic Informationsystems) makes it possible to switch from one Nordic bibliographic database host to the other and in this way get access to NOSP data. By using electronic post and/or telefax in connection with online ordering the end-user would get the document when he needed it. The role of NOSP would then change from being an instrument for location of information to providing information.

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Automation and the Union Catalogue

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Abstract
Fundamental changes have taken place in the service to users as a result of automation of union catalogues of serials. But what will suit one particular group of users or one country will not necessarily suid another. Automation, linked with networking has provided flexibility and enabled 'catalogues' to be tailored to needs. This paper traces some of the developments in automation from the early use of punched cards and paper-tape to sophisticated online full-text systems which must necessarily incorporate a union catalogue of holdings.

Introduction
Automation and the union catalogue – this paper could have been a description of the application of automation to serials records and locations from the early use of punched cards to the sophisticated online full-text system which must necessarily incorporate a union catalogue, and is capable of being networked throughout the world. But this would have concealed the importance of automation to union catalogues of serials, and the fundamental changes which have taken place in service to users resulting from this automation and associated networking.

The needs of users
This paper attempts to put this subject on its head and to investigate the users' need for serials and how these can be met by automation. What will suit one group of users or one particularly country may well not meet the requirements of another. One thing above all others that automation of library records has taught me is that automation increases the available options, and this can be no bad thing. Before the advent of automation we struggled to maintain union catalogues of serials manually. These were either in card or sheaf form which could only be accessed by a visit to the site, or in printed form, which in the UK for example meant BUCOP (British Union Catalogue of Periodicals) which was maintained by the National Central Library – now part of the British Library Document Supply Centre.

Early developments and the value of union lists of titels and locations
One of the earliest union catalogues of serials in machine-readable form in the UK was the *Union List of Periodicals in Institute of Education Libraries* the 1966 edition of which served as a test file for the basic programs of the Newcastle File-Handling System. A two chain record structure was used, but the sorting of entries was done by hand. Each entry gave the title followed by the holdings of the twenty-two co-operating libraries and the result was printed on a line printer.[1]

This was a list of titles with holdings attached and although today one would expect such a holdings list to be produced by more sophisticated automation methods I would maintain that such a list still has a useful place in the scheme of things. Let me give you two examples:

1. *Essex Union List of Serials* which is a microfiche list of the serials material held within Essex County Libraries and the Libraries in and near Essex with which it co-operates.

2. The *NEWSPLAN* projects by which the British Library and the UK Regional Library Systems list the titles of all local newspapers together with their holdings.

The Essex Union List like the list of title holdings on a university campus allow the reader to consult this material at the cost of short journey or to obtain a photocopy from a co-operating library at little cost. The *NEWSPLAN* lists not only identify titles and locations but provide the basis for a programme for the microfilming and preservation of UK local newspapers which are a valuable and popular source for research in all subjects.

Both the Essex and NEWSPLAN lists are held in machine-readable form but whereas the Essex list is published twice a year on microfiche and is out of date as soon as it is published, the NEWSPLAN lists by their very nature are not subject to change and illustrate the continuing value of this form of union catalogue of serials.

The problems associated with large union catalogues location data

In fact the larger and more comprehensive a list of serials with location holdings becomes, the more difficult it is to keep it up to date, and I speak here from bitter experience. LASER (London and South Eastern Library Region) has been involved for many years with the LASER Union List of Periodicals (LULOP).

Published first in 1946 as the London Union List of Periodicals and going through two further manual updates in printed form it was scheduled to be maintained in machine-readable form by LASER in the 1970's and has been a thorn in the flesh ever since. The problem at that time was not only the difficulty of keeping the title and locations information up to date, particularly as it was the practice to record branch as well as library system holdings, but the cost involved in setting up an automation system and keying in the records, in relation to the price for which the finished product could be sold.

LASER, with the assistance of the member libraries in the co-operative prepared a number of proposals, but in each case of marketing exercise showed that sales would be unlikely to cover costs and as little or no subsidy was involved the projects were dropped. Every effort was made to use the developments in automation which were being introduced in the late 1970's and early 1980's such as the ISBD standard for serials and the ISSN numbering system but these proved to be of little value.

ISBD(S) and ISSN

We were conscientious in confirming to the ISBD(S) standard, but few if any of the sets of serial title records available to LASER for purchase conformed to this standard and matching of records was difficult if not impossible.

In those early days the use of ISSNs (International Standard Serial Numbers) was complicated by what we knew as the "Bowker" numbers. Bowker having anticipated the introduction of ISSNs by the introduction of its own numbers, there was no single authoritative list and libraries notifying LASER of additions were using the Bowker numbers which appeared in the Ulrich Directory. All in all it was a difficult situation and it is only recently that advances in automation and networking have made it possible to contemplate an online version of LULOP.

Union catalogues without detailed holdings statements

The initial work in this advance was the creation in machine-readable form of serial records without detailed holdings statements which were published in printed form. A current example of this type of union catalogue is *Serials in the British Library*[2] which lists all new serial titles, including serials received through legal deposit, acquired by the London-based

collections of the British Library. The serial records in this publication are derived from three MARC files, namely BNB MARC (the machine-readable equivalent of the British National Bibliography), the current catalogue of the British Library Humanities and Social Sciences and the current catalogue of the British Library Science Reference and Information Service.

The principal bibliographic aids supporting the British Library's document supply service for serials which serve a similar purpose are *Current Serials Received*[3] and *Keyword Index to Serial Titles*.[4] The former is a list of titles arranged in alphabetical order similar to that used in the *World List of Scientific Periodicals*. It provides no detailed bibliographic information but lists shelf mark and location for each title, and is undoubtedly a union catalogue of titles and holdings.

Keyword indexing

The *Keyword Index to Serial Titles* or KIST as it is known is issued quarterly on microfiche. It illustrates par excellence, the effect of automation of union catalogues. The fact that the records are held in machine-readable form makes keyword presentation and the production of magnetic tape for COM output on fiche perfectly feasible. Thus automation has enhanced the value of these union lists by keyword access and by reducing the cost of production compared with print on paper.

CD–ROM

A more recent development in automation, and the one of particular interest to me as Director of LASER, is the CD–ROM. This technology has been applied to a number of bibliographic and information databases, but an example most relevant to my subject today is *Boston Spa Serials*.[5] The British Library Document Supply Centre on CD–ROM. This 'union catalogue' includes the holdings of The British Library Document Supply Centre, The British Library Humanities and Social Sciences, The British Library Science Reference and Information Service, Cambridge University Library and Science Museum Library. It has 366,000 titles on a single disc, adds 35,000 new records and 80,000 amendments each year. It can be used for title verification, location and record creation and can also be used for Wildcard and Boolean searching.

The ability to download records from the CD–ROM for the creation of local system is one of the attractions of this technology and is the subject of discussion between LASER and BLDSC regarding LULOP.

This area of the automation of union catalogues of serials has altered our perception of the creation and use of these catalogues. Automation has made it practicable not just to have the lists of titles available but to use these union catalogues through keyword/subject access for information retrieval purposes.

Single input – multiple output

Stella Keenan in her chapter on Abstracting and Indexing Services in *Serials Librarianship*[6] has put it very well:

> "As the major services have shifted from manual to mechanized production systems, two radical changes have occurred in the production process. This is the idea of 'single input – multiple output' ... The basic concept of 'single input – multiple output' is that the bibliographic and intellectual analysis (abstracting, indexing, categorizing, etc.) is keyboarded once and checked for accuracy. The record can then be used over and over again as required. This production concept is the basis of mechanized bibliographic services being produced today. The basic idea of 'single input – multiple output' means entering information into the file once only, checking the record to ensure absolute

accuracy and tagging for later retrieval all the useful information elements in the record. This multiple use of the record allows not only manipulation within the main published product for entry under more than one heading or for index generation, but also its re-use in subsets of the main file. Pre-packaging allows large discipline-based services to produce specialized smaller and cheaper information services aimed at a particular interest or speciality."

Other developments in automation

The reduction in the cost and size of computer storage in recent years has made it possible to add further information to the bibliographic record. Contents page listing is a feature of the design of contemporary lists.

MEDICAL SCIENCE WEEKLY published by Elsevier, is a current awareness service providing details of the complete contents of over 1,000 of the most important medical and biomedical journals. The interesting aspect of this publication is that it is produced on floppy disc. LASER is producing a newsletter on this medium. This newsletter is obviously not a union catalogue of serials but the advantages of PC diskettes over the CD-ROM indicate that the diskette may serve a useful purpose for production of small union catalogues. In *Information Technoloy Notes*, issue no. 65, December 1989 the advantages of the diskette over the CD-ROM are said to be many:

"Its low production cost for trials and short runs enables many more publishers to become involved. Small files can be accomodated easily, and maybe produced more frequently, so that information can be kept more up-to-date. Floppies can generally be marketed cheaply enough to provide a personal service, and can be copied esaily, subject to copyright restrictions only.

No special equipment is needed to receive the diskettes, so that those who have PCs already have the user technology required. They are also likely to have the skills required to run the programs provided.

A final benefit to diskette publishing is that the disks can be used both as an immediate package of limited volume current data plus search software, and as a medium for transactions to update an external system."

I have moved a long way in this paper from the punched card and paper-tape input which characterised the early efforts to automate union catalogues of serials and you may well say "What do we mean today by an automated union catalogue of serials."

Full-text retrieval

I would answer you by asking as I did at the beginning of my paper. "What do our users, many of whom are sophisticated users of information retrieval systems, expect of union catalogues of serials?" They undoubtedly would like subject and/or keyword access as well as title access. May they not be expecting fulltext retrieval?

Developments in electronic document storage by the use of digital technology and the delivery of this material by Group III and Group IV fax machine make this service a reality.

ADONIS

The ADONIS project which began experimentally in 1987 is based on bio-medical literature and accepts the concept that if new technology can be used to fulfill requests for journal articles rather than by labour intensive procedures, the savings can be shared with publishers. The original ADONIS partners consisted of Blackwell Scientific Publications, Elsevier Science Publishers, Pergamon Press and Springer-Verlag. Later Academic Press and John

Wiley joined the group. The establishment of scanning bureaux to cope with the demands of the European Patent Office, was able to give the ADONIS project the service it required. The agreement of a number of large document supply centres including BLDSC in the UK, CDST in Paris, the Medical Library in Cologne and the Royal Academy of Science in Amsterdam to take part in the experiment, enabled the project to proceed.

The ADONIS document delivery service on CD–ROM, after a successful two-year trial, is to become a fully operational service by 1991. During the trial some 50,000 prints were supplied from centres with ADONIS work stations from 217 biomedical journals from ten of the largest scientific publishers. For the operational service some 425 heavily used journals of interst to the pharmaceutical industry will be involved.

Optical disk-based systems

ADONIS is an interesting concept but let me look further into the future to an optical disk-based system able to store the article images and print them out on demand. Such a system is in use at the Information Services Division of the UK Home Office Forensic Science Service at Aldermaston. A union catalogue of articles which can be printed out on a LASER printer or faxed on demand? The French "Foudre" system using Group IV fax is operating a similar system for the transmission of journal articles, and the OPAL Library System, the Optical Automated Library[7] is used by the UK Express Group of newspapers for a reference library on a journliast's desk. The potential for storage on optical disks is enormous one could almost say astronomical.

The problems of less developed countries

Inevitably my paper has dealt with developed countries and in particular the UK the country in which I live and work. I accept that there are many countries of the world where the technologies I have referred to in the latter part of this paper seem figments of the imagination. I was particularly struck by a recent article on *Library Co-operation in Kenya* by Japhet N. Otike[8] which spoke of the scarcity of bibliographical tools as being one of the factors inhibiting library co-operation. Although a union list of periodicals for libraries in east Africa exists, the last edition came out in 1975 and since then it has not undergone any revision.

I see the development of inexpensive work stations cum PCs using floppy disks to produce union catalogues of serials, as a possible answer to some of these problems if resources are made available. The use of records already produced in machine-readable form – "the single entry-multiple use concept" – is surely one that we should accept throughout the world. None of us have enough money, we must all co-operate in the use of scarce resources if we are to improve services to our users.

I believe that the expectations of our users for access to serials makes the "union catalogue" of serials of increasing importance. The automation of records and texts combined with sophistaced telecommunications networks can and will provide the technology to meet these needs. I find it an exciting world in which to live and work.

Networking

Finally, I would like to suggest that networking, using Open Systems Inter-Connection (OSI) has added a new dimension to the concept of the union catalogue.

OSI will enable the user to search computerised union catalogues with different searching mechanisms and held on different computer systems.

The Euroepan Commission has recently accepted a proposal for an Open Systems Inter-Connection (OSI) pilot/demonstration project between library networks in Europe for inter-lending services. The project arose from the Commission's call for 'declaration of interest' in

pilot or demonstration projects designed to promote competitiveness and develop the information service market in Europe. The participants in the project are:

London & South Eastern Library Region (LASER), in the United Kingdom
Pica Centrum voor Bibliotheek automatisering, in The Netherlands
Ministere de l'Education Nationale, Direction de la Programmation et du Developpement Universitaire, Sous-Direction des Bibliotheques (SDB), in France.

The major objectives of the project are:

(i) to achieve interconnection between three computerized library networks in the United Kingdom, in the Netherlands and France in order to support and develop international interlending and messaging services
(ii) to improve the efficiency of international interlending services
(iii) to demonstrate the capabilites of OSI communication protocols in a message-oriented environment for interlending services in the interconnection of computerized networks with different technical characteristics.

The project, which will last nearly three years, is being co-financed by the participants and the Commission of the European Communities (DG XIII B). The total cost of this development is 2,579,000 ECU's.

Three phases of development are planned:

(i) the specification of technical, functional and service requirements for the interconnection of three interlending networks
(ii) the implementation and operational testing of the OSI communications based ILL system
(iii) the use and evaluation of the system by fortysix libraries in the U.K., the Netherlands and France.

As a result of these developments, the three networks will be linked via the international X.25 service and will provide international loan message and identification services. The international loan message service will be based on the OSI interlibrary loan (ILL) and X.400 message handling protocols. This message service will be interfaced to the existing national ILL services. Identification services to enable the user to search computerized union catalogues with different searching mechanisms and which provide information on the ILL services and sources of materials within the U.K., the Netherlands and France, are also planned utlimately, i.e. a joint union catalogue of holdings in these countries.

The databases which form the basis of these networks hold titles and location holdings of monographs as well as serials, but do they not provide a foretaste of the union catalogue of serials for the future. What after all is an automated union catalogue of serials?

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IFLA GENERAL CONFERENCE STOCKHOLM 1990

Division:

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99-ACQUIS-5-E

USE OF COMPARATIVE ACQUISITIONS DATA TO BOOST GOVERNMENT PARTICIPATION IN UNIVERSITY LIBRARY BUDGETS

A Case Study from Israel

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Use of Comparative Acquisitions Data to Boost Government Participation in University Library Budgets

A Case Study from Israel

ABSTRACT

During the 1980s, the acquisitions capability of Israeli university libraries deteriorated alarmingly, due to inflation and other factors, some of which are of international scope. This was perceived by Israeli librarians as threatening the information base vital to academic research.

A study of collection development in university libraries in the United States, Great Britain and Germany was undertaken in order to ascertain the condition of Israeli libraries visavis those in the West, and whether their solutions to acquisitions problems could be applied locally.

The results of the study helped convince the Israeli Grants Committee of the gravity of the situation, as a result of which the Committee increased its participation in university library budgets to 50%.

USE OF COMPARATIVE ACQUISITIONS DATA TO BOOST GOVERNMENT PARTICIPATION IN UNIVERSITY LIBRARY BUDGETS

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1. INTRODUCTION

The university library is the repository of information, the vital resource for both instructional and research activities. Because the library reflects the academic priorities and goals of the parent institution, its quality is a central factor in determining the reputation of the university as a whole, its capability to attract staff and students and enlist research funds (Evans, 1978, p. 5) and in evaluating its request to grant an advanced degree.

This is true regardless of the size and nature of the institution; even a school that emphasizes scientific and technological fields, with advanced research conducted in the most uptodate laboratories, must back up its investment in equipment with a concern for the quality of the library. Yet, even where the importance of the library is acknowledged by the administration, this does not always translate into adequate budgetary support.

In recent years, worldwide inflation and price increases have brought about a grave deterioration in the buying power of libraries' acquisitions budgets. Between 1967 and 1982, the prices of periodicals increased by 500% and of monographs by 350% (Moran, 1984, p. 67).

No less problematic is the sheer volume of material published each year: more than 500,000 book titles (Grannis 1987, p. 428) and 100,000 periodicals (Ulrich's Periodical Directory, 1987). Academic libraries strain to cope with ever greater amounts of information while the buying power of the budgets is ever weaker. In this situation, no library in the world, however large and however ample its budget, aspires to obtain <u>everything</u> that is published, nor would be capable of acquiring, storing and making accessible the enormous quantity of information that is published each day. Even selective acquisition of items of potential interest in a particular discipline still means extensive purchasing, far beyond the abilities of most libraries.

When we speak of the financial crunch facing academic libraries, the problem should be seen in relative terms: what is "bad" for an American or European institution is

still far better than the situation of Israeli libraries, which are already at a disadvantage compared with their counterparts elsewhere in the world. Printed material costs an Israeli library up to 24% more than it does some libraries abroad, due to a 16% Value Added Tax 7% postage costs, and 1% for bank costs, customs clearance, etc. I.e., an acquisitions budget of one million dollars represents only around $800,000 in real buying power.

Additional losses are caused by budgeting in Israeli currency rather than in foreign currency (so that the actual budget depends on fluctuating exchange rates) and, since the budget is not made available in its entirety at the beginning of the fiscal year, the need to spread payments out over the course of a year, making it impossible to benefit from discounts offered for pre-payment.

In Israel, the problem did not emerge suddenly, nor was it unprecedented. There was a severe deterioration in the buying power of the acquisitions budgets in the years 1975-1978, following the Yom Kippur War. In 1978, a subcommittee of the Grants Committee recommended direct subsidization of the libraries' acquisitions, based on a proportion of about one-third of the amount budgeted by the universities.

This proposal was implemented in 1978. During the next several years, the universities' managements learned to make use of the government's "largesse." They gave less money to the libraries, and used the Grants Committee monies for ongoing expenses. The situation gradually worsened, and was aggravated by the severe inflation that ravaged the Israeli economy in the mid-1980s.

The extent of the problem may be seen by comparing recent acquisitions figures for two Israeli universities with a list of American research libraries ranked by acquisitions. In 1986-87, the libraries of the Hebrew University of Jerusalem (including the Jewish National and University Library) added a total of 28,670 volumes to their collections - including 14,874 titles acquired, with the balance consisting of presents or legal deposit. In the same year, the University of Haifa Library acquired 5606 titles, and received 10,602 as presents, for a total of 16,208. In the United States, the top 44 libraries in the list acquired 71,000 to 296,000 titles per year; institutions lower in the list acquired 41,000 to 70,000 titles per year; and even number 106 on the list acquired 30,000 titles. Thus, collection development at Israel's leading university library trails behind the least active of the American research libraries!

A similar picture emerges from comparison of periodicals subscriptions: in 1986-87, the Hebrew University libraries

had 7983 current subscriptions and the University of Haifa 5500; while in the United States, top-listed schools had 30,000 to 58,500 subscriptions, those lower down 10,000 to 28,000, and number 65 on the list had 9500.

Israeli librarians became concerned about the worsening situation, which, if allowed to continue, would bring about a deterioration of the national information base, which is based in the university libraries. That would have further undesirable consequences: a lowering of the level of research; a possible "brain drain" of academics, especially among the young, who, unlike senior scholars, do not have recourse to sabbaticals in order to access physically remote research material; and a slowing of industrial development due to a lack of both basic research and qualified personnel.

One means of improving the situation would be for the libraries to make a case to the University Grants Committee. In order to gather information on which to base an appeal for action, research was undertaken to learn about collection development in university libraries of the United States, Great Britain and Germany, the means they found for coping with the twin problems of financial constraints and the information explosion, and to consider whether their solutions could be applied in Israel - or whether relevant lessons for Israeli solutions could be learned.

2. CONDITION OF THE ISRAELI UNIVERSITY LIBRARY COLLECTIONS

Regarding textbooks, there is little room for leeway. This basic body of literature is provided by all university libraries in the disciplines in which courses are taught.

The core collection, consisting of the most important books and periodicals in the various academic disciplines, is intended for intensive use and so must be easily accessible, and enable users to browse. The core collections of Israeli university libraries were not up to the level of their American and European counterparts, which also were forced to reassess their expense. The years-long lack of sufficient funds for ongoing collection development hampered acquisitions activities and led to cuts in periodicals subscriptions. At the University of Haifa, for instance, acquisitions since 1985 managed to keep pace with the needs of the bachelor's degree in all departments - but not with the research needs of advanced degrees or new departments. As of August 1988, there were 13,500 book orders waiting to be placed. The number of periodical subscriptions was cut back by 2720 between 1985 and 1988 - although 700 subscriptions were renewed due to faculty pressure, which was encouraged by the Library.

The problem seemed grave to the library management, who pointed out that if even the core collection is only partial, there is a danger of mediocrity in academic research due to the lack of resources. The problem could only worsen with time, due both to the growing backlog and the fact that an item not acquired at time of publication may go out of print and can be obtained later only with difficulty or for a higher price.

In the realm of marginal data, vital for research, the need for accessibility does not mean that the material must be physically present at each institution. Modern communications technology, computerization and techniques of information retrieval make it unnecessary for a library to possess all the marginal material that might be of interest. In this context, bibliometric studies have found that the essential information in a given field is concentrated in 20% of the relevant literature, with the rest being scattered among the remaining 80% of the literature in that discipline, and in related fields. Even so, at present rates of publication, acquisition of everything of potential interest in a particular field of research means extremely extensive purchasing, far beyond the abilities of a large university library in the Western world, not to speak of Israel. Instead, it is important to ensure that the 20% of material likely to be needed by researchers be available somewhere in the country, with reliance on overseas sources on the infrequent occasions when an item from the less-critical 80% is needed. It is here that inter-institutional cooperation has been attempted.

3. MODELS FOR COOPERATION IN COLLECTION DEVELOPMENT AND INFORMATION PROVISION, AND THEIR SUITABILITY FOR ISRAEL

Resource sharing is conditional on four prerequisites:

1. sufficient funding for coordinated collection development
2. existence of detailed acquisitions policies for each participating institution, including written agreement (or at least a conspectus) as to which marginal disciplines will be developed by each institution
3. professionally competent library management, vested with appropriate authorization for book selection and controlled outlay of acquisitions budgets
4. adequate local communications and transportation networks for rapid exchange of information and physical document transfer, respectively

The survey pointed to several national models: those of the United States, Great Britain and Germany.

3.1 The United States

In the U.S., the research libraries divide up the load of ongoing acquisitions among themselves, with each university developing, beyond the required core collection purchased by all, a specific field. This is done on the basis of policies prepared and applied through inter-library cooperation (The Research Libraries Group Conspectus).

In addition, the three national libraries (Library of Congress, National Library of Medicine, National Library of Agriculture), along with the New York Public Library, each serve as a "library of libraries" - that is, a clearinghouse from which other institutions may obtain copied of material.

Research libraries are also assisted by the Center for Research Libraries, in Chicago, which houses little-used material from 100 institutions, with arrangements for quick access (Moran, 1984).

The annual national acquisitions of American research libraries is on the order of $300,000,000 (Grannis, 1987).

3.2 Great Britain

Great Britain adopted a more radical form of resource sharing as an official policy (Higham, 1979, p. 137), in which a library maintains a minimal collection and relies for backup on the central support system of the British Library Document Supply Center.

In this model, new acquisitions replace older or little-used material, which is removed from the collection on an ongoing basis. The goal is the "lean library", in which limited resources go for items for which there is a high likelihood that they will be used intensively. This also saves expensive storage space. Both acquisitions and weeding are carried out according to written policies, with each library free to increase or restrict its collection as it sees fit.

In order for this library model to meet the needs of instruction and research in the universities, the British Library Document Supply Center (BLDSC) is an inseparable component. The BLDSC is a clearinghouse, a central support system, whose function is to ensure access to desired information with maximum efficiency. This form of information provision is cheaper, more efficient and more convenient than traditional approaches, such as interlibrary loan or a researcher traveling to the library where the material is located.

The annual budget of the BLDSC matches its scope: 29,000,000 pounds (about $53,000,000) in 1987. Of this amount, 6,500,000 pounds (about $12,000,000) are earmarked for building the collections, which are intended to contain nearly everything published in the world. The balance of the budget goes for hundreds of personnel, maintenance of vast storage space, computer processing and photocopying.

Britain's "lean libraries" still provide readers most of the core collection, and have the advantage of being able to fall back on the BLDSC, as well as the national libraries of Wales and Scotland, for support when necessary.

3.3 Germany

In Germany, there is a large central library, the Deutsche Bibliothek, which, while not formally a national library, fulfills some of the functions of one. For instance, it publishes the National Bibliography. But the main feature of the German model is cooperation among the various independent, and quite wealthy, universities. Each library is responsible for one or several special subject fields. (Landwehrmeyer, 1979, p. 157). Furthermore, schools with strong collections in certain fields are subsidized by the German government for ongoing development of those collections, in order to strengthen the national research base.

3.4 Israel

In Israel, no formal cooperative scheme has yet been attempted. It should be kept in mind that there is a tremendous difference in scale. Israel, with a low population of some 4.5 million, has seven universities; the United States has a population of some 240 million people, and hundreds of colleges and universities around the country. In Israel, both the demand for information and the means of providing it may, therefore, be quantitatively well below those of the United States; but it is still necessary to strive for parity in the quality of information services, given the stress placed on advanced and creative research.

Use of computerized databases abroad could be useful to some extent, but would have to contend with telecommunications costs, and would deny researchers the ability to "browse" - an important factor in creativity. Even if needed material could be located in some foreign collection, it would take some time for copies to reach Israel. The unsatisfactory condition of Israel's own internal telecommunications network works against implementation of cooperative schemes.

There are inter-library loan arrangements, but inter-university cooperation in collection development remains only an aspiration, although such cooperation would aid in solving the problem of marginal research materials, which have not been acquired for several years now due to budgetary difficulties. The prerequisites for resource sharing cited above are not fulfilled, in whole or in part, in some of the Israeli universities.

The Jewish National and University Library, part of the Hebrew University of Jerusalem, could serve as a library clearinghouse in a limited fashion only, primarily in the fields of Judaica, Hebraica and Arab studies. There are a number of reasons for this, primarily the lack of suitable budgets. An outside consultant (Humphreys) recommended in 1982 that suitable conditions be created to enable the National Library to fulfill its missions; but to this day no progress has been made in that direction.

Most institutions do not have written acquisitions policies for their own collections, which could serve as a basis for preparation of cooperative acquisitions policies and the distribution of disciplines among the participating institutions.

In some universities, the administration of the central library receives only a small portion of the acquisitions budget, with most purchases being done by other sources (faculties, schools, chairs, etc.), as they see fit, without any coordination with the central library. In this situation, inter-university cooperation would really be just cooperation between the central libraries, which misses the mark.

Given the absence of a full-fledged national library, the British model, which relies on a strong clearinghouse for backup, could not be applied. Nor could the American, which assumes more ample resources available to the libraries. The German model - government subsidization of strong collections in largely independent institutions - might be the most appropriate for Israel.

4. CHANGING THE SITUATION

A 1987 report to the University Grants Committee, prepared at the University of Haifa, pointed out the extremely unfavorable situation of Israeli academic libraries visavis those abroad. It made the following recommendations directed at improving the libraries' budgets and collection development practices, with the goal of establishing a national information infrastructure able to support research and teaching needs:

1. a guaranteed minimal amount for ongoing acquisitions (textbooks and core collection), according to the

academic needs of each institution. This would obligate each library to prepare detailed acquisition policies

2. set the value of the budget in terms of a currency basket of the United States dollar and selected European currencies
3. making the budget available to the libraries at the beginning of the fiscal year, in order to prevent loss of its value due to currency devaluations and cost increaes, and to enjoy the discounts offered for pre-payment
4. exempting the university libraries from payment of Value Added Tax and other taxes
5. creation of a national data bank as a backup for university libraries by allowing access to marginal material. This would include transforming the Jewish National and University Library into an independent "library of libraries", with additional support from the specialized collections of the Technion libraries, the Central Library of the Agricultural Sciences and the National Medical Library. This would require some 10 to 15 million dollars to set up - in addition to present expenses - and would be conditional upon each institution guaranteeing the amount needed for ongoing acquisitions
6. preventing the duplication in text and core collections within each institution by means of central administration of library services and prevention of a multiplicity of independent departmental libraries
7. building up a reserve of professional librarians, with provision of suitable employment conditions
8. encouraging inter-university cooperation in collection development

At the initiative of the University of Haifa Library, which wished to obtain an objective estimate of the situation, the Grants Committee conducted a survey of its own in order to determine the state of acquisitions in the university libraries. The comparative study of acquisitions policies, bolstered by the survey's findings, convinced the Grants Committee that, indeed, the quality of future research in Israel was seriously threatened by the failure to maintain an adequate level of library resources. Consequently, in 1989, the Committee increased its support of university libraries to 50%. This was conditional on the universities preserving at least the current (1988-89) acquisitions budget.

The impact of this move was felt almost immediately. For instance, it enabled the University of Haifa Library to clear up its entire backlog of current orders. Nonetheless, it would be a mistake for Israeli librarians and library managers to assume that this "happy ending" to the problem will enable them to live "happily ever after." The increased funding is, of course, necessary and welcome. But it is not a complete solution, insofar as it

addresses the budgetary problems of individual institutions rather than the need to encourage cooperation and the development of a national library network.

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IFLA GENERAL CONFERENCE STOCKHOLM 1990

Division: Collections and Services

Section/RT:
Rare Books and Manuscripts

96-RARE-1-E

Forgery and Fraud; Murder and Suicide: A North American Perspective

by

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FROM THOMAS FISHER RARE BOOK LIBRARY 06.21.1990 11:39 NO. 3 P. 2

Abstract

Two major cases of the forgery of manuscript and printed documents have occured recently in the United States. Both also involved loss of life. This paper examines and describes the Hofmann case and the Texas forgeries case in terms of what was forged, how the forgeries were detected and what implications these cases have for collectors, institutions, dealers and historians.

FROM THOMAS FISHER RARE BOOK LIBRARY 06.21.1990 11:40 NO. 3 P. 3

On Oct. 15, 1985 two people, a young businessman and a middle-aged housewife, were blown to bits by pipe-bombs in Salt Lake City, Utah. The next afternoon a third bomb exploded, seriously wounding Mark Hofmann, a dealer in Mormon documents and books. On a Sunday morning in April 1989 the body of John Jenkins, a prominent antiquarian bookseller was found in the Colorado River near Bastrop, Texas. He had been shot in the back of the head with a high calibre gun. These two quite separate events, involving the world of rare books and manuscripts, are linked by forgery and fraud, but not, apparently, in any other way.

The forging of documents has a very long history with a variety of motives attributed to the forgers. The Donation of Constantine was created at some time during the early Medieval period to establish Roman authority for the universal Catholic Church: its exposure as a forgery by Lorenzo Valla in the fifteenth century, while causing a considerable controversy, did not result in the Roman church losing its hegemony. Literary forgeries of the kind perpetrated by Chatterton [1] or MacPherson [2] are closer to the legal definition of fraud: the deliberate mis-representation of something to obtain an unjust advantage, although literary forgers are very seldom prosecuted in criminal courts. W.H. Ireland [3], the Shakespearian forger, did create false documents, purporting to be by Shakespeare, unlike Chatterton and MacPherson, who created bogus authors (Rowley and Ossian) for purposes of attribution. These three cases were easily and thoroughly exposed with little permanent damage to literary history: no one now believes that Shakespeare wrote Vortigern. Indeed both Chatterton and MacPherson ultimately gained significant literary reputations which have endured.

More troublesome are forgers like Major Byron [4], whose forgeries of letters by his famous namesake still bedevil modern scholarly editors. His motives were probably mixed but certainly involved the three most common ones; greed, contempt and envy. The famous case of T.J. Wise [5], whose methods involved "creating" first editions of nineteenth century literary works where none had existed (pre-firsts) had as one of its motives simple economics (greed) and certainly Wise was contemptous. His forgeries have been identified and are today well known, but the exposure required an enormous scholarly effort and a great deal of time. The problem of whether he would ever have been brought to court was solved by his death shortly after the exposure but traditionally there has been remarkably little just retribution for literary forgers compared to that meted out to the forgers of bank notes (Dr. Dodd [6] was hanged in

FROM THOMAS FISHER RARE BOOK LIBRARY 06.21.1990 11:40 NO. 3 P. 4

1777), unless another criminal action, such as murder, was involved.

A great deal has been written about Mark Hofmann [7], much more than a case of forgery would normally engender, and the reasons for this have to do with his background, the history of the Church of Jesus Christ of Latter Day Saints (often referred to as LDS) and the sensational aspects of the case. Mark Hofmann was born a Mormon in Salt Lake City in 1954. He served his "mission", as many Morman males do, in Bristol in 1974 and 1975. As a child he had collected coins and his collecting instincts combined with the kind of genealogical research that is a crucial part of Morman history led him to an interest in books and documents, especially those involving the LDS, and this led him to his career as a dealer in these objects. In 1980 he produced the first of the sensational discoveries that established his reputation and brought him into direct contact with the Church archives, his best customer. This was called the "Anthon Transcript" and purported to be the earliest known Joseph Smith holograph, in Egyptian characters copied from the gold plates of the Book of Mormon, and made in 1828 for examination by Charles Anthon, a Columbia University professor. It was examined by Church authorities, pronounced genuine, and sold by Hofmann to the Church for twenty thousand dollars, which he received in trade in the form of a Morman gold coin, a first edition of the Book of Mormon, and several pieces of pioneer Mormon currency. Its discovery was announced to the world, it was triumphantly deciphered and Hofmann's career was launched. The document, which had been pasted into a 1668 English Bible with the name "Samuel Smith" in it (Samuel Smith was the great grandfather o. Joseph Smith) was proved eventually by a complex series of scientific tests to have been forged and Hofmann admitted to the forgery.

The reason that this document, and dozens of others produced by Hofmann, created so much excitement and generated so much publicity is part of the context of the peculiar history of the LDS Church. The Church was founded in 1830 by Joseph Smith Jr. in upper New York State. He was lynched in 1844 and Brigham Young led his disciples on the great trek west to the desert and mountains of Utah in 1847, there to establish a new kingdom, where what were regarded as the peculiar beliefs and practises of the Mormons could be freely indulged. The picture of Mormons given by Sir Arthur Conon Doyle in A Study in Scarlet (1887), polygamy, blood atonement and other shocking practises, still forms the basis of the perception of the Church for many. The Mormons also believe in "retrospective baptism", and are thus the most active genealogical organization in the world. Historical documents are important to Mormons in a way they are not to most people. The other primary factor affecting the documents trade is the Mormon adherence to the American

FROM THOMAS FISHER RARE BOOK LIBRARY 06.21.1990 11:41 NO. 3 P. 5

ideal of economic capitalism. Mark Hofmann wished to be a millionnaire and, because of titheing and the business acumen of its leaders, the LDS Church is very wealthy. Thus the combination of desire for documents to authenticate its history, wealth, and the relative youth of the Church (many genuine documents of its founders do exist) make it the ideal customer and expose it to the danger of exploitation.

Mark Hofmann sold to the Church, or sold to individuals who gave them to the Church, at least three hundred documents, sixty-one of which have been identified as forgeries. The most spectacular was the so-called "Salamander letter", dated Oct. 23, 1830, and written by Martin Harris to W.W. Phelps. It contained an account of the coming forth of the Book of Mormon rather different than the traditional one. Gone were the references to God and the Angel Moroni and instead a white salamander appears, transforms itself into a spirit, and strikes Joseph Smith three times. There are many references to seer stones and enchantments and it was calculated to embarrass the Church considerably, which it did when news of it became public. It was pronounced genuine by a whole series of experts and sold to Steve Christensen for forty thousand dollars. Christensen, subsequently one of the pipe-bomb victims, found it too hot to handle and gave it to the Church Archives, who promptly suppressed it, thereby illustrating another of Hofmann's techniques. His best customer had two motives for buying from him: either the church wanted to acquire documents to exploit them for historical purposes or they had to acquire them to prevent historical embarrassment.

Hofmann then turned his attention to a different kind of forgery, a printed document and one worth a great deal more money than anything he had previously handed. In March 1985 he announced that he had discovered the only known copy of The Oath of a Freeman, the first printed document produced in what is now the United States (1638). What had been assiduously searched for by American bibliographers and collectors for two centuries (there is an early reference to it having been printed) had apparently turned up in a miscellaneous collection of ephemera in a New York book store. It was offered, through another dealer, to the Library of Congress for a million and a half dollars, tested by experts in the Library's laboratories who could find nothing to suggest that it wasn't genuine, but turned down for purchase because of the price. The Oath was to be tested many times, including an elaborate test on the cycl at the University of California, Davis, always with the same positive results based on negative evidence. It even had a provenence of sorts, a manuscript inscription on its verso in what appeared to be a seventeenth century hand. It was finally proved to be a forgery by typographical analysis, described in detail by Nicolas Barker, and by the ink tests

FROM THOMAS FISHER RARE BOOK LIBRARY 06.21.1990 11:42 NO. 2 P. 6

developed by George J. Throckmorton to perform his forensic analysis of the manuscript documents. The electroplate from which it had been printed was discovered and during the post-trial interviews conducted by the Salt Lake City prosecutors Hofmann described his methodology in detail.

Hofmann was by now in a financial quagmire from which he attempted to extricate himself by murder. He was charged with two counts of murder and twenty-eight counts of fraud, but after plea-bargaining pleaded guilty to the reduced count of second degree murder and was sentenced to prison for a term of five years to life (his father thought he should have pleaded guilty to first degree murder, faced a firing squad, and so fulfilled the doctrine of blood atonement). He has since been denied parole and is reported to have attempted suicide.

Much of the information regarding Hofmann's forgeries comes directly from interviews with him in prison conducted by prosecutors, but always in the presence of his lawyer. Such testimony must be regarded with some scepticism but much of it does tally with the evidence of forensic analysis. George Throckmorton, the analyst, discovered, among other features of the ink on documents which passed through Hofmann's hands, an effect he called "alligatoring", a pattern of cracking, revealed under a microscope, which resembles the skin of an alligator (it might more properly be called "craqueline"). It seems to be caused by mixing gum arabic with the ink and then oxidizing it to give it the appearance of age.

This case has many ramifications and some of them might be taken as lessons. From the perspective of the forgeries, the lesson might be that, for dealers, collectors and institutions, provenance is at least as important as scientific evidence in establishing authenticity of a document, printed or manuscript. Hofmann's motives remain mysterious but certainly involve greed, envy and contempt.

General knowledge of the Texas forgeries [8] began to emerge in 1987 when a copy of the Texas Declaration of Independence which had been sent to Dorothy Sloan, an Austin antiquarian bookseller, proved to vary slightly from the copy at the University of Texas. W. Thomas Taylor, also a bookseller who had himself sold three copies of the Declaration and had felt uncomfortable because he knew that before 1970 only five copies of it were known and there now seemed to be at least twenty around, set out to find where they had all suddenly come from. He conclusively demonstrated that the new arrivals were forgeries, identified the forger, established the means of distribution and has so far identified over sixty copies of fourteen documents, all of them broadsides concerned with Texas history.

FROM THOMAS FISHER RARE BOOK LIBRARY 06.21.1996 11:45 NO. 3 P. 7

These forgeries, unlike those of Mark Hofmann, are comparatively easy to reorganize, at least in hindsight. The fake Declaration can be identified by measurement (the type area is slightly smaller) and has obvious typographical anomalies, when one knows where to look, but it was, of course, copied from a genuine original. The Thomas J. Rusk broadside called Glorious News, which announces the defeat of General Santa Anna, and is dated April 23rd 1836 is printed in twelve point Linotype Century, a typeface which did not exist until 1896. The Town of Houston, a broadside also purportedly of 1836, is printed in Linotype Bodoni, a typeface not used until 1918.

The self-confessed fabricator of all these documents is C. Dormon David, now a sculptor but once a prominent Austin dealer in Texana. He was also once a heroin addict and has said that he made the plates from which the broadsides were printed between 1964 and 1972. He was closely associated with William Simpson, an auctioneer in Houston through whose rooms many of the forgeries passed, and had very close business arrangements with John Jenkins, the high-rolling bookseller who had bought the Eberstadt Collection, ex-president and security officer of the Antiquarian Booksellers Association of America, and a well-known high stakes poker player. Most of the forgeries seem to have been sold through the Jenkins Company.

Why John Jenkins died, and even how, are still mysteries. The Bastrop County coroner's jury ruled that his death was a homocide but the Sheriff of the county believes it was suicide. No weapon has been found and opinion varries from assassination by Los Vegas mobsters, as an example to those who don't pay their gambling debts, to an ingeniously concocted suicide (it is very difficult to shoot yourself in the back of the head and lose the gun), a subject occasionally discussed by Jenkins. The Jenkins Company warehouse had burned down three times in three yers, which had aroused the suspicions of the insurance company, and that, no doubt, has a bearing on the case as well.

In November 1989 the University of Houston convened a conference on forged documents [9] to which were invited dealers, collectors, librarians, forensic documents experts, lawyers and investigators of past forgeries. Papers on all aspects of forgery were read and discussed, ranging from the contribution of complex scientific tests on paper and ink to the legal liabilities of collectors and institutions and the tax implications for donors. It was revealed that although enough evidence had been accumulated over the past two years to establish a criminal case for massive fraud (the Texas Declaration sold in the thirty thousand dollar range and all the forgeries were expensive) and that people were willing

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to testify, no one yet had been prosecuted at all. The reasons for lack of legal action emerged in a confusing way.

The director of a special collections department in a university, for instance, who has either purchased or been given forgeries cannot himself prosecute a forger or a knowing distributor of forgeries. He must pursuade the university to act through its legal department and apparently many university administrations are unwilling to pursue a complex and legally fraught case through the courts for what they consider trivial sums with, they think, no hope of recovery any way. Of the three main culprits in the Texas forgeries case, one is dead, one is retired, and one has disappeared into the seculsion of a small Mississippi town. Tom Taylor wants some action taken but all he has been able to do, apart from publicize the case as widely as possible, is to resign from the Antiquarian Booksellers Association of America because he feels its ethics and security committees did not respond to the revelations either quickly or effectively. Dorothy Sloan has also resigned.

The keynote speaker at the conference dinner was Larry McMurtry, the well-known writer and bookseller. His sombre address spoke of the romantic tradition of bookselling that rendered many indulgent towards what was viewed as a mild form of banditry, which could see forgery as a victimless crime. But, of course, forgery has many victims, and not just the collector or librarian who has paid a lot of money for a worthless document. The historical record is skewed by forgeries and the mutual trust that binds dealers, collectors and institutions together is badly shaken by the revelations of forgery. McMurthy also spoke of contempt, the kind of contempt that produces enjoyment for forgers over the gullibility of those innocent enough to buy forgeries.

The Houston Forgeries Conference was remarkable in several ways. It produced passionate discussion of important questions among a diverse group of people who would not normally find themselves together. It raised problems which need to be discussed even if they can't always be solved. Its proceedings will be published in the Autumn of 1990.

The North American perspective on forgery at the present time is obviously sensational and rather gloomy (another series of forged broadsides has been discovered in New England). How does it pertain to the international world of rarebooks and manuscripts? There are, no doubt, British and European examples, as the primary motive of greed exists there as much as it does in the United States. Increased competition and higher prices for historical documents provides some impetus for the forger and Mark

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produce forgeries that are very difficult to detect. Dorman David has demonstrated that even rather crude fabrications can be passed off as originals and it is no accident that almost all these forgeries have been broadsides. The forger will always be part of the world of rare books and manuscripts. It is the responsibility of the hones inhabitants of that world to be vigilant.

NOTES

1. Thomas Chatterton (1752-70) fabricated a series of poems purporting to be by Thomas Rowley, an imaginary fifteenth-century Bristol writer.

2. James MacPherson (1736-96) produced epic poems supposedly written by Ossian, a legendary Gaelic bard.

3. William Henry Ireland (1777-1835) forged a series of Shakespearian manuscripts, including a play called "Vortigern and Rowena". He published his Confessions in 1804.

4. Major George Byron (d. 1882) claimed to be an illegitimate son of Lord Byron and forged a series of Byron, Shelly and Keats letters. His real name is not known.

5. Thomas James Wise (1859-1937), forger, collector and bibliographer, produced, together with Buxton Forman a series of forged nineteenth-century pamphlets, which were exposed by John Carter and Graham Pollard in their 1934 Enquiry ...

6. William Dodd (1729-77) forged a bond in the name of Lord Chesterfield. Despite many petitions, including one from Samuel Johnson, for his pardon he was executed.

7. There are five main sources of information on the Hofmann case:

    1. Hoffman's Confession ... the Transcripts of Salt Lake County Prosecutors' Interviews with ... Mark Hofmann. Salt Lake City, Utah Lighthouse Ministry, 1987. 3 volumes.

    2. Salamander by Linda Sillitoe and Alan D. Roberts. Salt Lake City, Signature Books, 1988. (this contains Throcknorton's forensic analysis)

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3. The Mormon Murders by Steven Naifeh and Gregory White Smith, New York, Weidenfeld & Nicolson, 1988.

4. A Gathering of Saints by Robert Lindsey. New York, Simon and Schuster, 1988.

5. Two articles by Nicolas Barker in The Book Collector, Winter 1987 and Spring 1988.

8. There is now a considerable literature concerning the Texas forgeries in periodicals, e.g. "Forgery Texas Style" by Gregory Curtis in Texas Monthly, Mar. 1989 and "Knowing Johnny Jenkins" by Calvin Trillin in The New Yorker, Oct. 30, 1989.

9. The best account of the conference was written by Eric Korn and appeared in The Times Literary Supplement of Nov. 24-30, 1989.

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Section of Conservation

149-CONSERV-E

Mass Deacidification: Now That it is a Reality, What Next?

by

Richard Frieder

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IFLA

Mass Deacidification: Now That it is a Reality, What Next?

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Keywords:
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preservation
conservation

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Abstract

In libraries worldwide, virtually all books and documents published after approximately 1850 are deteriorating rapidly due to acidic paper. Mass deacidification is a chemical process by which large quantities of books and documents may be treated to increase their useful life by three to five times. After many years of development, several different mass deacidification processes are now becoming available. Due to the magnitude of the risks involved in this new technology, libraries must evaluate the several processes before proceeding with treatment programs. This paper discusses general goals and criteria for evaluation, including treatment effectiveness and side effects, and toxicological, environmental, materials handling, operational, cost, engineering, and contractual issues.

Mass Deacidification: Now That it is a Reality, What Next?

The vast majority of the post-1850, paper-based materials held by libraries throughout the world are deteriorating at a rapid rate due to the presence of acid within the paper. Every nation that keeps in its libraries paper materials produced since the middle of the nineteenth century shares in this dilemma. One of the primary solutions to the problem is deacidification: a chemical treatment in which acids are neutralized, thereby significantly slowing or halting the deterioration process. In addition, the treatment deposits an alkaline reserve in the paper that will neutralize any acids that form in the future. Deacidification does not strengthen paper, but it will lengthen its useful life by a factor of three to five.

Deacidification of individual items has been possible for several decades, but mass deacidification technology, in which hundreds or even thousands of items are treated at once, is only now, after many years of development, becoming available. In both Europe and North America, libraries are facing a formidable challenge as they

begin to make plans for implementing mass deacidification programs. This paper addresses the first part of this challenge: choosing among a variety of mass deacidification processes, all of which endeavor to meet the same requirements through different methods, but none of which have a track record to help us in our judgments.

The importance of choosing carefully among processes is perhaps most apparent when one considers the far-reaching implications of mass deacidification. In performing a chemical treatment on large quantities of material, we will take potentially enormous risks with the most valuable resources of any library: collections and people. If the treatment should prove ineffective or damaging, we run the risk of losing materials, some of which may not be replaceable. Should the chemicals prove to be hazardous to staff or patrons, we will be tampering with people's lives, not to mention the legal implications for our institutions. Mass deacidification is therefore unlike many other risks we take in libraries, where if a mistake is made only the spent resources are lost. Here the stakes are much greater.

Given the magnitude of the risks of mass deacidification and the undeniable need to gain access to it, how can libraries proceed responsibly? Whether individually or collectively, libraries must carefully evaluate the mass deacidification options available before taking action. Not to perform such an evaluation would be to act recklessly with both the collections and the people entrusted to us. To ensure that the results will be both fully

reliable and credible, this evaluation must be done in an objective, equitable, and standardized way.

Establishing goals and criteria for such an evaluation is therefore an important first step. The following discussion of these is based on four assumptions:

- more than one mass deacidification process will meet enough of the criteria to be considered viable
- it is unlikely that any process will be capable of effectively treating the wide variety of papers, inks, adhesives, and binding materials found in most library collections without causing some undesirable results
- for most libraries, mass deacidification will be a vendor-provided service
- libraries must take the lead if evaluation is to result in fully credible information that truly meets our needs

Following are what I suggest as the eleven goals of a library mass deacidification program, and a brief discussion of criteria for each.

1. treatment should extend the useful life of paper by a factor of three to five

It should be demonstrated that any mass deacidification process under consideration achieves three things:

- that it reliably and thoroughly neutralizes acids in a wide variety of types of paper, raising pH to an acceptable

level

- that it uniformly deposits a sufficient quantity of alkaline reserve to prevent acids from forming in the future, and

- that the treatment is permanent

2. the process should have no pretesting or preselection requirements, i.e., it should have no damaging or undesirable effects, either during treatment or during any pre- or post-treatment processing, on any materials being treated

Books and documents may contain many kinds of materials: paper, ink, other pigments, cardboard, thread, cloth, a variety of adhesives, leather, vellum and parchment, bar codes, call number and title labels, book pockets, photographs, microforms, floppy discs, and still others. The possible effect of the chemicals and of any pre- and post-treatment processing on all of these materials must be known before a treatment program can be implemented. Will paper discolor? Will ink run? Will the adhesive that holds many bindings together be effected? It may be decided that some of these potential side effects are acceptable; in other cases this will not be so. In addition, potential damage during packing, shipping, and handling must be considered.

3. the process should be safe and non-toxic for library staff and users

The importance of insuring that treated material will be non-toxic to library staff and users cannot be overstated. It is important to consider not only the potential toxicity of one item, but of

large groups of materials together. One book by itself may not present a threat, but the thousands of pounds of chemicals that may be added to a library's stacks by the treatment of many thousands of items may be another matter entirely. It is also essential to examine toxicity implications over long periods of time. Some library staff will be handling material in the collections on a daily basis for many years. The potential legal and moral implications of going forward without properly evaluating toxicological implications are frightening.

4. the process should have no significant environmental implications

Clearly, any of our libraries would want, from the aspect of both social responsibility and legal liability, to make sure that all mass deacidification processes to be used have no significant impact on the environment. Environmental safety is a particular concern for those processes that presently use freon, a chlorofluorocarbon that is damaging to the earth's ozone layer.

5. treatment should be available at a low unit cost

The unit cost of mass deacidification is still uncertain, but indications are that it will be in the area of $5 - $10 per volume. It is easy to see the importance of obtaining mass deacidification services at as low a unit cost as possible. Vendors should be able to describe in detail the cost of mass deacidification services, how the cost figures were arrived at, and specifically what is or is not included in the figures.

6. the process should have no materials handling or processing requirements that will unduly increase costs

Each process has different characteristics that have the potential to increase or reduce costs. One of these, as discussed earlier, is preselection and pretesting. In addition, some processes require different treatment cycle times for glossy, heavily coated paper. Some require chemical solutions of different strengths for some kinds of material. These factors too may make presorting and preselection necessary, and therefore increase costs. It is possible in at least one mass deacidification process to treat material in the same cartons in which they are shipped to the treatment facility. Similarly, material stored in containers such as document boxes can be treated in the boxes. Some other processes require that material be removed from shipping or storage containers. This represents another materials handling issue that can effect cost. In a venture that is likely to include many thousands of items, each step in the process can have a major impact on the cost of the program. Libraries must identify and understand these factors before making an agreement for services.

7. the process should have no materials handling or processing requirements that will unduly disrupt library operations or services

For many libraries, mass deacidification will be a major organizational undertaking requiring that large quantities of material be unavailable for significant periods of time. It will be desirable to reduce wherever possible requirements imposed by

the vendor that will unduly disrupt library operations or that will have a negative impact on library services. In addition to the preselection and pretesting issues discussed earlier, another example is turnaround time: how long will it be before material sent for treatment is returned to the library? This will have an impact on library service to users. Establishing an acceptable level of quality variation will also be important. Inconsistencies beyond a certain level will consume an unreasonable amount of library staff time and delay the return of materials to the shelf. Libraries will have to choose among deacidification processes carefully to minimize the effect of these materials handling and processing issues.

8. the process should be capable of treating bound and unbound formats of various sizes with equal effectiveness

Our paper-based library collections usually come in a variety of formats and sizes. However, not all mass deacidification processes can handle this variety of material with equal effectiveness. Some processes, particularly those using chemicals in liquid form, depend upon the binding to hold book pages in place during treatment. Treating unbound material is therefore problematic. The size of the treatment tank or chamber must also be considered. If it is small, oversize materials will be a problem.

9. the process should be properly engineered to work successfully on a full production scale (in contrast to laboratory or pilot plant scale)

Not all experiments will work once removed from the artificial conditions of the laboratory. A multitude of chemical, engineering and materials handling questions must be addressed in order to clearly demonstrate that a mass deacidification process that works in the laboratory will function properly on a pilot plant scale, and then at full production scale. Libraries should expect vendors to have, at a minimum, a successfully operating pilot plant and detailed plans for a full-scale production plant. Library staff should visit the vendor's facilities before agreeing on services.

10. the process should have enough capacity to treat very large collections within several years

Most paper-based library materials will deteriorate to the point of being unusable without this treatment. In order to prevent embrittlement, it is probable that many libraries will endeavor to treat large quantities of material over a period of ten to thirty years. Service agreements with vendors are likely to be for three to five years or more. In pre-agreement discussions with vendors, treatment facility capacity should be examined to determine whether it will support the library's overall timetable for deacidification.

11. the process should be offered by a stable and reputable organization that will fulfill its commitments

Because mass deacidification will probably be an expensive and long-term program for many libraries, the stability and reliability of the vendor will be an important consideration. Libraries should

carefully examine the vendor's track record and ability to fulfill commitments. Liability for materials while out of the library should be established, as should the vendor's intentions with regard to ensuring security of the materials.

These are the general goals and criteria by which mass deacidification processes can be evaluated. To meet these goals and criteria, libraries must engage in two kinds of activity. The first is to work with independent, fully qualified laboratories to perform the chemical testing that is required to evaluate treatment effectiveness, side effects, and toxicological and environmental issues. The methodologies that will form the basis of the testing should be agreed upon beforehand, and should meet any applicable government and industry standards. The second kind of evaluation activity is to engage in thorough discussion (including visiting the vendor's facilities and sending trial runs of material for treatment) with potential vendors regarding materials handling, operational, engineering, contractual, and cost issues. In the process, libraries should be prepared to engage consultants as necessary.

In both kinds of evaluation activity, it is important that all mass deacidifcation processes be measured against the same goals and criteria so that they may be compared both with the need of libraries and with each other. Within this context, some allowances must be made for different methods of accomplishing the same goals.

Performing an evaluation of this kind would be a major enterprise in itself, costing a minimum of $500,000. Fortunately, not every library needs to take on such a burden. Some portions of the evaluation, such as the chemical testing, need only be done once for the benefit of many libraries. Such an effort is underway at the Library of Congress, and at the Deutsche Bibliothek in West Germany. However, other parts of the evaluation effort may need to be performed by many libraries according to their circumstances.

The international library community must succeed in mass deacidification if we are to fulfill our mission. A very considerable portion of the world's collective memory is seriously threatened by acidic paper. Mass deacidifcation technology will greatly improve our ability to meet this challenge. Evaluation of mass deacidification processes is an essential first step that will enable us to understand beforehand the strenghts and weaknesses of each process and then make informed choices.

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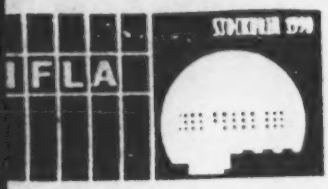

Division:

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Serial Publications
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34-ACQUIS(WS)-1-E

Workshop

" Will the chain break?"

Differential pricing as part of a new pricing structure for research literature and its consequences for the future of scholarly communication

Short introduction of the topic

by

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SI: ~~yes~~/no

"Will the chain break?" - by definition, this chain is formed by the partners involved in the production and flow of scholarly information: authors, publishers, booksellers or agents, librarians, and users, who in turn may also become authors. Initially, we librarians see this chain endangered by the general price increases for materials we would like to purchase for our users. These prices rise much faster than the average rate of inflation. We see it even more endangered by the policy of differential pricing, exerted by an ever increasing number of internationally important publishers. This is a main cause for the deterioration of libraries' purchasing power. There are two ways of charging libraries excessive prices by this policy: firstly, as institutions in comparison to individuals, i.e. mainly by increasing surcharges on libraries' subscriptions of periodicals in comparison to the individual rates. But also by costs of hardcover editions of monographs, preferred by librarians because of their greater durability, that exceed the costs of the respective paperback editions by an amount far above the value of the machine-made binding.
Secondly, differential pricing is based upon the libraries' geographical location in relation to the country of origin of the literature.

Because even strongly worded articles of protest by librarians against this procedure used by many publishing companies have been fruitless, the IFLA Section on Aquisition and Exchange has taken on the problem, making it one of the focal points of its work. It hopes to attain international solidarity among librarians.
To this end, Ulrich Montag, Secretary of this Section, opened the campaign with a paper entitled 'Differential pricing in the international book market' at the 1988 IFLA General Conference in Sydney, Australia.
At last year's IFLA Conference in Paris Rolf Griebel, also a member of the Section on Acquisition and Exchange, gave a preliminary report based on the evaluation of the first replies of libraries to an informative questionnaire. At that time the Standing Committee of this Section decided that Mr. Griebel

should give the final report at this workshop. In addition IFLA bodies together with LIBER have invited Knut Dorn as bookseller and agent, Karen A. Hunter for the publishers and Richard M. Dougherty as scholarly editor to deliver papers addressing this issue from their various perspectives. In the discussions in the afternoon we librarians are aiming not at confrontation but at exchanging views in order to increase mutual understanding. But, these discussions, at some date in the not too distant future, should be followed by substantial negotiations and actions.

These are urgently needed as in many cases the chain has already broken: Many American and European libraries have to focus on access instead of ownership because they can no longer afford all the materials they would like to acquire for their users. Therefore, many scholars are thinking of communicating the results of their research via electronic information networks. But this means withholding information from a wider public that might have been reached by journal articles.
Publishers themselves are investing much money - and we librarians think that differential pricing helped them to collect it - into electronic publications irrespective of the doubts in their longevity.
We are aware that the problems we will discuss here are embedded in the wider context of the issue of public or private production, distribution and ownership of information. The protection of the flow of scholarly communication in the near future should be the common interest of all links in the information chain. We hope that this workshop will be a step towards this great goal.

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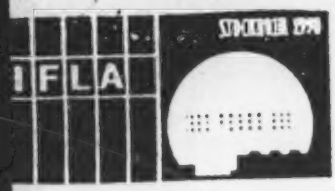

Division:

Section/ Acquisition and Exchange
Serial Publications
UAP Office
LIBER

35-ACQUIS(WS)-2-E

Workshop

" Will the chain break?"

Differential pricing as part of a new pricing structure for research literature and its consequences for the future of scholarly communication

DIFFERENTIAL PRICING: STM PUBLISHERS' PRACTICES AND PERSPECTIVES

by

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for the

International Group of Scientific, Technical and Medical Publishers (STM)

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DIFFERENTIAL PRICING: STM PUBLISHERS' PRACTICES AND PERSPECTIVES

A paper prepared for discussion at the

IFLA General Conference, Stockholm, August 23, 1990

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Introduction

The Section on Acquisitions and Exchange of the Collections and Services Division of IFLA has focussed attention since 1987 on certain publisher pricing practices they label "differential pricing". Feeling that solidarity was needed to combat "a main cause for the deterioration of libraries' purchasing power" [1], Rolf Griebel and Ulrich Montag undertook to poll librarians worldwide as to their concerns and their suggestions about differential pricing. A preliminary report of that survey was made at the 1989 IFLA Annual Meeting.

The preliminary report was shared with the International Group of Scientific, Technical and Medical Publishers ("STM"), as its membership includes many of the most important publishers of books and periodicals for international markets. STM publishers in general do not share IFLA's belief that the targeted pricing policies are a major factor in the broader scheme of library budget problems. However, the IFLA report made it extremely clear that many librarians see a problem of very great proportion -- one which publishers must, therefore, consider and discuss with librarians.

STM offered to survey its own members on the same issues which the IFLA questionnaire covered:

1) different prices for institutions and individuals (measured in periodicals by different subscription rates and in books by pricing of hardcover versus paperback editions); and
2) different prices for different geographical locations, particularly for locations outside of the country of origin.

The STM survey was conducted during the winter of 1989-90. This paper reports the results of the survey and comments on the issues which STM publishers believe should receive greater focus in discussions between publishers and librarians.

1. Description of the sample

STM is a organization made up of member companies and their (affiliated member) subsidiaries. The questionnaire was sent to the head of the member company and in most cases was completed centrally on behalf of all subsidiaries. Many of the forms were completed personally by the chief executive officers and included lengthy comments. In total approximately 40% of the full and affiliate members (or 100 companies, including subsidiaries) were represented in the returned sample. As many STM members publish primarily or exclusively for local markets, this return represents a respectable proportion of the international publishers, although by no means all of them.

The geographic distribution of the offices from which the survey forms were completed was approximately 36% from the U.S., 35% from the UK, 22% from Western Continental Europe, 3.5% from Eastern Europe and 3.5% from Japan.

The survey specified that all figures were to be on the basis of 1989 publications. For the surveys returned, 5,445 books and 1,994 periodicals were covered.

2. Structure of the questionnaire

The questionnaire was divided into two broad sections: books and periodicals. Many STM publishers organize their book and journal operations in separate units and, even when they are integrated, the intellectual and financial models for publishing books are generally quite different from those used for journals.

Each section had two subsections. The first covered "dual pricing," the term most frequently used by journal publishers to indicate the existence of more than one subscription rate. There is no comparable phrase for dual-edition books, so "dual pricing" was pressed into service to cover hardcover versus paperback pricing as well. The second subsection dealt with "differential pricing by geographic region."

In each of the four subsections the questionnaire asked first for certain quantitative and qualitative information as to the publisher's current practices. For each subsection publishers were also asked, if they engaged in practices which the IFLA survey found objectionable, to present their rationale for this activity. Although no specific "general comments" were solicited on the form, many publishers added thoughts which have been incorporated into the relevant section of this report.

3. Results

3.1 "Dual pricing" for books

Of the 5,445 books reported on the questionnaire for 1989, only 282 or 5.18% were issued in both paper and hardcover editions. Unfortunately, because the wording of the question focussed on dual editions, there is not a breakdown of the remaining 5,163 titles, but it is clear from the context of the answers that some of these titles were published only in paper editions.

Publishers were asked to indicate in percentages the intended markets for hardcover and paper editions (recalling, again, that some titles are issued only in paper). The results were:

EXPECTED MARKETS (AVERAGE PERCENTAGE)

	Hardcover Average	Paperback Average
libraries	56.2%	6.9%
individuals	25.7	44.2%
students	15.4	46.8%
other	2.7	2.1%
Total	100.0%	100.0%

Note that while academic and corporate libraries are considered the principal market for hardcover STM books (libraries are 90% or more of some publishers' market), sales to (non-student) individuals and to students are a very significant part of the hardcover market for many publishers. Clinical medical publishers most frequently cite the student market as important in both hard cover and paper editions. Certain "core" textbooks will be bought in hardcover to be part of the permanent reference collection of the future doctor, while other books lend themselves more to paper, either because they are considered disposable or lightweight portability is important. Indeed, it is the publishers' view of what the market wants that governs the decision to have a paperback edition at all. . Student price sensitivity, particularly in the developing world, was the most frequently cited reason for having a paperback edition.

With few exceptions, it is not the actual difference in binding cost alone which accounts for the difference between hardcover and paperback prices. The print run and paper quality are also factors to consider. In the ideal situation, there is a separate print run for the student (or other paper) edition printed on cheaper stock, and it is much longer than the hard cover print run, dramatically reducing both the unit cost and the retail price of the paper. However, publishers admit that the ideal situation does not always prevail. They may have a single print run used for both editions, with a single unit cost through the point of binding. The paper edition will receive what is then considered an "artificially low" price, which results in what publishers describe as "below normal" profit margins, where "normal" is the margin on the hardcover edition.

A few final comments on this issue. It was evident from the remarks provided in the survey that, quite aside from the production cost differences, many STM publishers sincerely believe that it is also fair to price hardcovers higher because of the multiple users in a library. And, as one publisher noted, libraries always have the option to buy the paper edition (with admittedly the problems which the IFLA preliminary report noted).

3.2 Differential book pricing by geographic region

Just as STM publishers believe there are legitimate market reasons to offer a discounted paperback price (and that is how it is seen -- a discount from the normal hardcover price), so too do they generally defend a book being higher priced outside of its home country market. Only two publishers, each from a small country with an equally small home market, said they tried to have their books priced at the same price worldwide, and even they could not control all factors affecting price.

The most common reasons given for a higher price outside the country of publication were:

(1) where subsidiaries promote, sell and maintain local inventory: the costs associated with shipping, local warehousing and keeping depth of inventory;
(2) where shipments were made directly from the home country: shipping costs still were high, plus the cost of long-distance promotion and difficulties in accounts receivable and customer service (e.g. lost or damaged shipments);
(3) arrangements with co-publishers or sole agents in which they assume all responsibility for distribution but, in return, have the right to set the price where they need to recover their costs;
(4) protection against currency fluctuations; and
(5) (very) high mark-ups by booksellers or other agents over which publishers have no legal control.

It should also be noted that at least one STM publisher said it priced lower for certain markets (e.g. the Indian subcontinent) because of special conditions in those markets.

In summary on export pricing, for most STM publishers with short print run books and correspondingly small unit sales in export markets it seems quite reasonable to have each market bear the costs associated with moving the book to that location, selling it (through whatever local representative), collecting the money and making the necessary currency provisions. There was no difference in opinion between US and European publishers on this matter. Publishers say libraries' desire for a single price worldwide would result in home market buyers subsidizing exports and that publishers are unwilling to do. Further, publishers do not think of this as "differential pricing" but as the normal and necessary way of doing business in international markets.

Publishers were also asked how they viewed "buying around" practices for books. Of the publishers responding, 59% said they ignored it and 41% tried to discourage it (feeling it was unfair to local agents). Only one publisher reported that all titles must be purchased directly (but there is reason to suspect they misunderstood the question). Many STM publishers cited market

demands for fast shipment as the rationale for local warehousing, with the attendant higher costs. If rapid fulfillment and local service are not priorities, libraries may be able to reduce costs by "buying around". But libraries should not be fooled that the cost is the same as in the home market, for the shipping and other expenses still have to be paid (even if through an agent) and ultimately, if the costs are not adequately recovered because libraries go "around", all prices will go up.

3.3 "Dual pricing" for journals

Leaving books, one enters the somewhat more precarious or emotional area of periodicals pricing. Much blood has been spilled over this issue in recent years, only some of it related to "differential pricing". The STM publishers' survey started with a request to categorize their journals by the types of rates offered (excluding student rates). Four pricing patterns were reported:

JOURNAL RATE CATEGORIES

Rates offered	No. of journals	% of total
(a) Institutional only	792	40%
(b) Institutional & society member	325	16
(c) Institutional, society member and non-member individual	443	22
(d) Institutional & individual	434	22
Total	1994	100%

Category (a) is clear enough: there is only one price for all subscribers. Category (b) refers usually to those journals for which the publisher has made a marketing arrangement with a society to offer the society's members (and only its members) a reduced rate; generally (but not always) the publisher owns the journal and the society has no editorial role. Category (c) is the typical pattern for a society-owned journal where it is important to the society that members perceive that their membership offers a lower price to the journal than that paid by non-member individuals. Finally, one comes to Category (d) -- the one-fifth of the titles where both an institutional and individual rate are offered but no society is involved. This last category seems to provoke the most misunderstanding and anger from librarians.

Related to (d), the STM publishers were asked the ratio of institutional to individual rates. 41% said the average ratio was 1.5:1 or less, 35% reported 2:1 and 24% responded with an average exceeding 2:1. Most reported the ratio was holding constant from year to year, i.e. institutional and individual rates were increasing proportionally. When asked which price (institutional or individual) they considered "normal", 58% of the publishers (representing 77% of the journal titles) said the

institutional price, 21% of the publishers (representing 19% of the titles) said the individual price, 17% of the publishers (3.8% of the titles) found it impossible to distinguish and 4% of the publishers (with .2% of the titles) said it varied with the journal.

Publishers were then asked to give their reasons for having more than one price. The basic reasons were:

- society requirements (cited by 58% of the publishers)
- multiple readership in libraries (47%)
- desire to expand the market requires low price for individuals (37%)
- other (to build advertising base; editorial pressures; different points in journal life cycles; etc.) (26%)

Finally, publishers were given an opportunity to elaborate on the message which they wished librarians to receive about this topic. Given the length and frequency of the responses, this issue hit home with STM publishers. A selection of the many comments follows.

- Sales to institutions are analogous to software site licenses -- one copy is made available with the understanding that it will be used (and partially copied) by many. The individual price reflects the "private use" nature of the sale.

- Information is not free (produced at no cost). Publishers of scholarly information rely on subscriptions sales to finance the editing, production and distribution... for every individual who uses an institutional copy rather than buy his own, the publisher loses subscription revenues.

- In specialized STM journal publishing, pricing for individuals [only] would result in a disservice to scholarship -- fewer journals and unacceptable publication delays. Hence institutional pricing has to support the viability of these essential materials in order for knowledge to be disseminated.

- A journal survives or falls on the basis of its library circulation...Individual sales rarely achieve more than 20% of the library circulation.

- By selling additional [individual] copies at negligible profit, the total print run is increased, thus lowering the overall cost of each copy. Increased advertising income also helps to keep prices down.

- Historically many journals only had one price ("normal or institutional"). Once the journals became established and the institutional market became saturated or started

to recede, new markets needed to be formed to protect the journal's profitability...Additionally, one needs to expand the readership as much as possible to thus encourage contribution and hopefully higher quality papers. This cannot always be achieved through relying on institutional purchases.

- o A considerable number of journals would not be published if not supported by the library rate.

- o Many STM publishers would not mind if the private journal subscriptions would not exist.

However tired STM publishers are of defending dual pricing, they clearly believe that there are valid financial, market and ethical reasons for such pricing and do not intend to change the present systems.

3.4 Differential periodical pricing by geographic region

This is a difficult issue for libraries but a relatively straightforward one for publishers. Of the responding STM publishers, 85% have a higher price outside of their home market for at least some of their journals and only 15% have a single worldwide price (again, typically from small home market countries). Of the 85%, about 1 in 7 also have lower export prices for certain markets for some titles. The reasons given for higher prices:

(a) postage and handling (68%);
(b) currency exchange coverage (13%);
(c) better market conditions (13% -- notably E. European publishers); and
(d) higher marketing costs (8%).

The reasons given for lower export prices were to penetrate the market, concern for the Third World and "sometimes I get the exchange rate wrong."

As to libraries' practice of "buying around", publishers were asked if they would enter a subscription from a vendor without knowing the subscriber's address. Of those for whom it was applicable (that is, who had higher prices outside of the home market), 26% said "yes, reluctantly", 42% "yes, without a problem" and 32% required the address.

From their comments it is clear that those publishers with large home markets (for example, US and UK) are not going to ask their home market subscribers to subsidize the higher costs of sending journals overseas. As many publishers have made air delivery standard (to avoid the many months delay), export postage costs can be significant. One can speculate (only) that for US and European subscribers there is a relatively even trade-off of

local versus imported journals, with the benefits of being "home" to some publishers offsetting the postage for imports. For other areas of the world -- notably Asia, Australia/New Zealand, Africa and Latin America -- there is a disproportionate flow of goods into the country, with all of the attendant shipping costs. But are journals (or books) any different in that regard from any other goods imported in small quantities for limited markets?

Currency issues with regard to journals also draw strong -- and differing -- opinions from STM publishers. Aside from the uncertainty of currency fluctuations and the need to set prices months in advance of invoicing and payment, there are options as to which currencies should be used to denominate prices. Should the currency of the country of publication always (and only) be used? Some publishers were astonished to read the IFLA report statement that "99% of libraries firmly support the demand that publishers should set one price per title in the currency of the country of origin." It was their opinion that American libraries in particular would not pay in pounds or French francs and, therefore, the publishers needed to fix at least a dollar price as well.

Also, some felt that if the home currency was not a major currency, a more common currency should be used. This argument is strongest when one is seeking individual subscribers from many countries. It is not necessarily as true for journals which have predominantly or exclusively institutional subscribers. (Coming from a publisher which is one of the few that does set its definitive prices in the currency of the country of origin -- and, in the case of Dutch guilders, uses a relatively obscure currency -- I wonder if some of my fellow publishers may be overlooking the role the subscription agent can play in currency conversion.) Regardless of the currency formulations used, STM publishers made it clear they were trying to be fair to all subscribers and to respond to what they understood the market wanted. If the IFLA survey is accurate, then there certainly is a lack of communication on this currency issue between libraries and most publishers and further discussion is needed.

4. Reaction of publishers

With few exceptions, publishers were uniform in explaining their actions in terms related to fairness and either costs or perceived market needs. Costs are the driving force behind differences in books and journal prices by geographic region: it costs more to promote, ship and service distant markets and it is felt to be unfair to ask home market customers to subsidize those costs. As to dual pricing -- paper versus hardcover, institutional versus individual journal subscribers -- STM publishers cite market demands (e.g., student budgets, society requirements, editorial insistence). In addition, they indicated

a strong underlying belief in the fairness of libraries with multiple users paying more than individuals purchasing for private use.

A more general and perhaps important point, however, is the publishers' continuing surprise at the level of emotion these issues create among librarians. STM publishers do take seriously the library budget situation, which the IFLA report describes as "precarious". They understand the frustration of having a budget which is inadequate to meet user needs. But how, they wonder, can librarians seemingly not understand or accept something as basic to commerce as having to pay postage costs? Or, in international markets, the need to protect for currency fluctuations? These are daily realities for international publishers.

As was said at the very beginning of this paper, STM publishers do not generally agree with IFLA that these two issues -- dual pricing and different prices in different geographical regions -- are at the heart of most libraries' current budget problems. At a minimum this difference of opinion suggests a need for further discussion to explore whether, for example, there are practices about which publishers are not fully aware -- such as unusually large vendor mark-ups. Certainly, STM publishers have encountered the occasional vendor which has even deliberately misled libraries about publishers and it would help both sides to expose such offenders.

But for most STM publishers there are other, more critical factors at work in their discussions with libraries about the price and future of their products. For books, tight budgets mean fewer purchases and fewer purchases lead to lower print runs, which further raises prices. Competition is at an all-time high, further reducing the sale of any one title. And book piracy continues to erode sales in many textbook and reference markets.

For journals, the continuing growth in scientific research and the pressure to publish leads to journals which grow in size, adding to the already high prices. As libraries cancel for whatever reason and turn to shared services (including interlibrary loan and commercial document delivery companies), the financial base of the journals weaken and more pressure is put on the remaining subscribers. Competition in journals for papers and subscribers is great. Currency instability leads to wide exchange rate fluctuations, adding to the unpredictability of subscription prices from year to year. Finally, there is a great and continuing need to invest in electronic R & D activities, which may provide long-term solutions but in the interim adds to the cost burdens of the publishers.

STM and its member publishers want to move beyond "differential pricing" arguments to discussion of some of these broader issues confronting the international scholarly community. How are

libraries and publishers together going to develop better ways of allocating scarce resources to ensure the maximum dissemination of information while preserving the financial incentives necessary to make publishing a viable activity? Are electronic books and journals the answer? Yes, in some cases, but not all. STM publishers want to explore these issues with librarians and STM invites IFLA to take the lead. We have a working group which has developed a workshop model for discussions with librarians and we would welcome use of this model -- or of any other format -- with IFLA. The door is open -- please come in.

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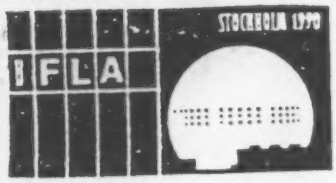

Division:

Section/RT:

161-ACQUIS(WS)-7-E

Workshop

"Will the Chain Break?"

Differential Pricing as Part of a New Pricing Structure for Research Literature and its Consequences for the Future of Scholarly Communication.

A Bookseller's Perspective on the Problem of Differential Pricing

by

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I am grateful that the Section on Acquisitions and Exchange of IFLA has invited me to contribute to this session and to present an agent's view on the issue of differential pricing. By inviting the agents to this session, the organizers have made it clear that they consider the practice of differential pricing a matter of concern to all three partners involved in the distribution of scholarly information: the publisher, the librarian and the agent. Yet, in contrast to the publishers and librarians, agents have rarely been heard from on this issue. As a matter of fact, the agents have been remarkably quiet in this discussion which, after all, has been the predominant topic in the professional arena for at least the last couple of years. This silence is rather surprising, given the dealer's role as the middleman in the distribution of publications and in view of the close interrelation of the agent's technical procedures with those of both other parties. I assume that it has actually been this middleman function that may have prompted the agents to avoid the issue and give in to the temptation to become spectators.

We all know that the agents have to be very diplomatic in this delicate balance between producers and consumers if they want to maintain a high level of service. When there are strong differences of opinion between their suppliers, the publishers, and their customers, the librarians, the agents can ill-afford to alienate either by taking sides. The lifeline of the agents is a good working relationship with both of their partners.

However, in the case of discriminatory pricing, it is my contention that the agent is not just taking sides in a difference of opinion between the publisher and the library, but that the agent should be critically involved in the issue for at least three major reasons:

1. There is the question as to whether an agent, as a professional in this partnership, should ethically support a pricing system in which some market sectors are forced to subsidize others, rather than have all consumers of the information, regardless of the geography, being billed the same price in the currency of the country of origin.

2. The many different price lists and the different pricing arrangements perpetuated by the discriminatory pricing strategy have overly complicated the agents technical procedures and cluttered their databases, increasing the cost of operation unnecessarily, and thus having a negative impact on the services the agent offers the library.

3. For some publishers there is, in addition to a special price for each market sector, a special office from which the publications must be purchased, depending upon either the geographical location of the recipient of the publication or the geographical location of the agent. This has interfered with the fair competition among agents, and it has usually not only meant an increase in the price that the librarian had to pay, it has invariably also brought a decrease in the amount of discount allowed to agents. The consequence is another obvious negative impact on the charges and services the agent can offer the library and, ultimately, this arrangement may be a threat to the very existence of the agent.

To elaborate on these three concerns of the agent, my focus will be the practice of differential pricing based on geographical considerations. Most of my arguments will relate to subscriptions, obviously because the critical price information is on record and readily available, and because the issue as such is on everybody's mind. But the situation is not that much different for the books and at least some of my remarks will relate to both areas of publishing.

Where the differential pricing is based on the location of either the agent or the library, and where the different prices clearly favor or disfavor subscribers in certain locations, I see an obvious element of unfairness, and this I think involves a question of ethics. There is invariably a situation in which either the librarian in Europe or in North America, in Australia or in Europe, in Germany or in Britain, is the one that has to pay a higher price than his colleague in the other country pays for the same product.

We have seen practically every combination of subsidizing or penalizing subscribers or purchasers of scholarly materials in one or the other continent or country, and often the situation has changed and been reversed in only a couple of years. North American publishers have been very consistent in charging European subscribers and institutions an inflated and marked-up price, whereas European publishers have been rather flexible in this respect: In the late 70s and early 80s the idea was to charge higher prices for American librarians, but in the last couple of years the tendency has been to subsidize the US market and to let European subscribers pay the higher bill. But no matter which side the publishers favor, there is always the other side that is confronted with the higher price.

I never cease to be amazed that so many of the international publishers have willingly given up the concept of the world price defined in the country of origin. Just imagine the savings in database size, in technical processes, accounting, printing and mailing costs if the publishers only printed one price list instead of separate lists for each currency where they have established prices. Aren't these savings that could be passed on to libraries through lower prices for their publications? Instead, they have created what actually is a no-win-situation, in which certain segments of the market are always alienated, and in which possible short term sales advantages are so obviously outweighed by long-term problems and antagonisms.

Confronted with an example of differential pricing, the agent has to decide how he perceives his professional role. To some extent, there is a personal element in such a decision, and the crucial question is more likely, how do I interpret my responsibility as an agent. As far as I am concerned, the agent's function is to provide a service which not only includes getting the material, the books and the journals, to the library promptly and efficiently, it also includes the obligation of getting the publications to the library at the best prices available on the market. As an agent I feel limited in my professional activity if I have to sell the journal at a higher price to the library in one part of the world than in another. I admit that I personally resent it if I am manoeuvered into a position in which I have to practice differential pricing myself when this strictly goes against my code of ethics. In such a situation I feel justified and even pressured into exploring every possibility of buying around and of looking for any possible loopholes and marketing devices in order to get out of the situation in which I feel I am pushed by the publisher. In short, I will want to use all of my professional capacities to ensure that the lowest price set by the publisher on the market anywhere can be made available to my customers through my services, regardless of where these customers are located.

Clearly, this is a situation that has the potential of leading to a conflict between the publisher and the agent, and in one way or another, all agents have had to decide how far they can go without risking interruption of service, cutting of discounts, or markets being closed to them. Cutting of discounts and closing of markets to discipline agents has, unfortunately, become a well-known phenomenon. Agents in one country serving libraries in another have been forced to buy from the publisher's outlet in the country in which their customer is located. Agents have repeatedly been forced to use acquisition channels determined by the publisher when the latter have

set up sales arrangements or sole distributorships in various countries through which they demand that the local market be served. In this way, publishers force their international pattern of operation onto the agents and the libraries, who may very well have their own international channels of operation, of purchasing and selling, that they have established a long time ago and that may suit their needs much better than the pattern enforced by the publisher, particularly when a better price is within reach through the agent's acquisition channels. Closed markets and sole distributorships for certain areas just lend themselves too easily to differential pricing schemes and, I think, everything should be done to eliminate them for that reason alone. We would then not find ourselves in situations in which libraries and agents are manipulated to the advantage of the publishers, as we have experienced it so often in recent years.

And the solution to all this could be so simple! All would be well -and I repeat myself- if international publishers would be willing to continue to set the price in the country in which the book or journal is produced, consider this a world price and sell it elsewhere in the currency of the other countries at a price that is based on the exchange rates prevailing at the particular point in time at which the sale is concluded. This has been the practice of the international booktrade for ages and it is a practice with which no librarian or subscriber can quarrel, no matter where the institution is located or where the subscriber lives.

If the solution seems obvious to both librarians and to agents, what is it that we are overlooking? Among the reasons given in defense of differential pricing based on geography I found two basic lines of argument which come up consistently.

First, there is the currency argument. It is maintained that there are markets that are not willing or able to accept prices in other currencies but their own. This is usually an argument applied to North America, but it has also been made for other markets. European publishers are obviously under the impression that US institutions and libraries are not willing or capable to deal with foreign currencies, and that the book produced in Great Britain, Holland, Germany or elsewhere in the world, has to be offered to the US market by quoting a US dollar price in order to help institutions or the public cope with selecting, budgeting or acquiring these types of foreign materials.

The question is, to what extent is this really the case? At least it is puzzling that such an argument can be made in an age of international trade, when the country of one of the leading international trade powers is involved. Is this attitude towards the American market really justified, or towards any other market that is approached with this attitude? Has it really been established whether the market is not actually willing and equipped to deal with prices in foreign currencies and would it not prefer to deal with the risk factor of the currency exchange itself rather than pay for the publisher's protection in form of a marked up price? Is it assumption or fact that libraries or subscribers in a given country do not have the expertise or possibility to deal with foreign currencies? Do they really need a price in their own currency or, argued the other way around, do the foreign publishers really have to manoeuver themselves into the obvious quandary when they aim to set firm dollar prices for their European product for an extended period of time? This is the familiar difficulty when they want to keep a catalog of dollar prices for their European publications valid beyond the initial currency situation that existed at the time when it was first distributed, or when they want to maintain one firm dollar price until the stock of their publications in their US office is exhausted.

The second argument given in defense of differential pricing is concerned with the additional costs involved, or supposedly involved, in dealing with a foreign market when it comes to promoting publications in another country, to shipping and storing of books or journals, or when distribution arrangements are made in that other country, and the argument is offered that were these additional costs not added to the price to be paid in the other country, it would then be the home market that would in fact subsidize the sales abroad. But again, how valid is that argument that is conveniently based on the apparent logic that one country or market should bear the costs that it takes to get the product there and to conclude the purchase locally. Has it not occurred to the publishers that all these factors,such as mailing, distributing, banking costs etc.,are really part of the daily business operations of the trade, and that the international agents have learned to cope with such cost factors a long time ago? International bookdealers and subscription agents have been able to make publications of one country available in another country without having to pass excessive charges for mailing, expenses for banking, promoting, advertising, or storage on to their customers in the country of destination. We hear publishers only talk about the agents' mark-up, -usually criticized as being excessive and illegitimate-, but we never really hear about the fact that the trade has, and very successfully so, made books and subscriptions available in other countries at publisher's list prices, often without service charges and without charges for transportation, for marketing efforts and currency fluctuations, all factors that publishers tell us now need to be incorporated into their price for their product in the other country.

International agents have in many cases established services on very economic terms for their customers in other countries, and, as a matter of fact, the international trade could not even have afforded to proceed

otherwise, since there is a very healthy competition among the international agents that has kept all of them very flexible and inventive when it came to beating cost factors that the publishers now try to tell us are unbeatable. The question is why publishers would not acknowledge this and support the international trade in order to get their product distributed at the best possible price anywhere which, as is my contention, is the original price of the country of origin, converted into any other currencies at the daily exchange rates. Thus, the publishers' price would be the true world price, would have the additional advantage of representing a convincing price arrangement, and would solve the problems of credibility that some of the international publishers have created for themselves.

Is it possible that the publishers may basically not want the agents to perform that function and do the job that they have, in all modesty, done reasonably well? Is it not so that they rather want to take over distribution themselves, sell directly to the institutions and bypass the trade either as publishers promoting direct sales or do the same thing in disguise by the help of agencies that they own? Naturally, in order to do that, they have to establish offices in other countries, buy up companies and set up new promotion and distribution patterns in order to organize and copy the agent's distribution arrangements. We all know: This is a costly enterprise, but then to turn around and tell us that the additional costs that it takes to do this have to be borne by the market concerned, -that seems less than convincing. Undoubtedly, selling directly to libraries and bypassing the agents adds to the profit of the publisher and is clearly in their interest. But the direct selling efforts of the publishers also result in added costs, and since it is safe to assume that these will be passed on to the ultimate consumers, it is questionable whether such direct sales are actually in the interest of the librarian and the market.

Where the impact of differential pricing is most problematic for the agent, where it hurts the most, is in the area of technical procedures and controls that are the prerequisites for the agent's performance. This is where I think the situation is critical and causes problems and aggravations to all the agents, no matter on which market or for which market they operate. As a consequence of differential pricing, there has been an inflation of price information for the production of the international publishers. There are price lists issued by the international publishers in as many as four or five different currencies. As long as they are based on valid exchange rates and bear a somewhat close relationship to the actual monetary situation, all this can be managed. But often it looks as if all sorts of projections, speculations, and marketing considerations on the part of the publishers are responsible for the definition of the prices quoted in the foreign currencies rather than any relationship to the existing exchange rates. The billing offered for journal subscriptions has reached a dimension of complexity and distrust in which agencies can no longer assume that their clients get the appropriate, let alone the optional, price among the choices offered by the publishers for the various markets.

Instead, the agents are forced to engage in complex analyses and to conduct time-consuming investigations to find out how the publisher has chosen to arrange the billing. Is he billing in the currency of the country in which he has produced the journal?

Is he billing in the currency that corresponds to the location of the subscribing institution?

Is he billing in the currency of the country in which the agent is located?

Are all subscriptions billed in the same currency, and if so, are the prices the same for one journal or are they differentiated according to country of destination and only then converted into just one currency?

What is the relation between the currencies offered on the different price lists?

Is it preferable for the agent's customers if the subscription is billed to them in US$, in British £, Swiss Francs, German marks or Dutch Guilders?

Which exchange rate has the publisher used for his price lists and how do these rates relate to the actual exchange rates at the time the lists have been made available?

What is the likely difference between the publisher's exchange rate and the one that is prevalent at the time at which the agent has a chance to do his own billing?

Will the agent have the chance to retain some flexibility by not telling the publisher where the subscriptions are going?

Should he change the subscriptions of that particular publisher to a reshipping arrangement?

Does such a change need to be reconsidered annually?

Is the publisher's pricing policy by which he subsidizes one market at the cost of another, going to last beyond the current subscription year?

Is it advisable to buy futures to protect subscriptions to be supplied from Europe to North America or from North America to Europe, or for both?

Is a better price for the agent's client possible if the bank is asked to protect a certain exchange rate, and if so, should it be the one valid at the time that the publisher announced the prices for next year, or should it be the one valid at the time of the agent's invoicing run?

For how long will the publisher maintain the price for the journal or the exchange rate that he may attach to it?

The questions and variations are endless and I am sure that I am far from having exhausted them by my examples. Whatever answers the agent finds for the production of each of the international publishers for one year, it is more than likely that the decision has to be reconsidered and changed for the next. In short, the agent is subjected to an incredible complex and time consuming pattern of investigation and analysis before he can establish appropriate subscription prices for the production of many of the international publishing houses, year after year.

One might, of course, argue that it would be simplest to accept the billing that the publisher chooses to issue to the respective agency, but that would invariably mean accepting the differential pricing pattern by which at least one group of the agent's clients located in one country or one specific market is put to a disadvantage. And this is something an agent cannot do if he is to maintain his credibility with his customers. So, for the agent, the only real solution to the problem is the world price by which the list price in the country of origin is converted at a realistic exchange rate. A few of the international publishers have come to terms with the problem, most notably Elsevier Publishers who set the price in the country of origin and

identify a relevant exchange rate for the other major currencies. However, they still feel compelled to establish exchange rates which are to be valid for longer periods of time, rather than simply letting the actual rate of exchange at the time of sale prevail. Springer Verlag has for the first time come close to this same concept with their journal prices for 1991. But the problem remains for many of the other larger international publishers in one way or another, particularly this year when most of the European publishers have decided to subsidize the North American market for 1991, not realizing or not wanting to realize that, by doing so, they penalize the European countries and the rest of the world by exactly the percentage that they give away to the American market.

No matter how they decide, for the agent, they create a need for an incredible amount of investigating and analysing of prices and exchange rates that tends to lead to a highly involved and often very risky decision-making process. It is time-consuming and expensive, and it definitely complicates the agent's job to a serious degree, and the discouraging part of it all is that it seems to be so unnecessary.

The situation is similar for the book production of the international publishers, possibly even more so since the price information for the journal market is, with some exceptions, readily available. Not so for the books, and sometimes it looks as if the bibliographical data is intentionally kept nebulous and the price information withheld from the agent who wishes to supply from one country to another. And this is an area with which none of the larger international publishers have come to terms with so far. Even those that have made an initial effort to get their journal prices under control still create havoc with their differential pricing policies for books. It is not at all unusual for the agent to have to make use of third-party contacts, inquire with other dealers or with librarians in other

countries, in order to identify the prices at which the publisher sells in that country, and which is the difference in the prices that he grants to agencies in that country and at which he chooses to sell directly.

For a company like ours, operating out of Germany, it is increasingly difficult and sometimes downright impossible to quote a competitve price for a book publication of Saur, of Springer Verlag, of Elsevier, or of other international publishers, to libraries in North America, and to other countries abroad, for that matter. The same problem probably exists for agents working from North America to serve libraries in Europe and elsewhere, so there is a prevailing situation of uncertainty and insecurity as to which price is to be considered valid for which country. That this does not help the credibility of the pricing policies of the international publishers is obvious. Even with prices established and advertised, it is still not certain whether the publisher will grant the agency that price if the agency's customer is located in the country that the publisher decided to penalize or to subsidize. This is, by the way, also the reason why it has been increasingly difficult for dealers to issue catalogs with reliable price information for the book production of the international publishers. Awareness services, such as notification forms, for new publications that have been developed by the international agents and that are widely appreciated by the library community are likely to lose their function when the production of the leading international publishers cannot be included any longer, at least not with reliable price information.

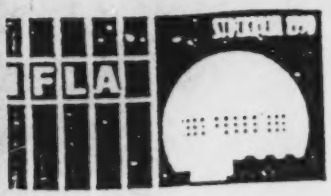
In short: I see the agent's functions unnecessarily complicated and rendered unnecessarily costly, as long as the practice of differential pricing prevails. The extra work that the agent incurs is a cost factor that he has to absorb, that he cannot pass on. But indirectly, his clients, the libraries, suffer because of services not developed and not rendered when a large

part of the agent's time has to be invested in the kind of frustrating investigative action that could easily be eliminated were the international publishers to return to the concept of a world price again.

I think that all the partners engaged in the distribution of scholarly information should agree to move back to a single currency price worldwide at which each journal and book is offered to institutions regardless of where they are located, with the price reflecting the prevailing currency exchange rate of the day. I find it encouraging that over 90 % of the libraries who responded to the IFLA questionnaire gave exactly this option their number 1 priority. We might be able to overcome the current climate of suspicion and antagonism and recreate an atmosphere of professional cooperation in which libraries and agents would not just have to feel like pawns on the publisher's chessboard. Publishers would regain confidence and credibility for their pricing policies and agents would be able to concentrate on what they really are supposed to do, and that is to improve their services to libraries and provide the publications at a fair and equitable price. As a matter of fact, with such a policy of publishers, agents would compete on service rather than price, and the academic community could be better served by all three partners involved in the distribution of scholarly information.

Thank you for allowing me this opportunity to present an agent's view on the issue of differential pricing.

IFLA GENERAL CONFERENCE STOCKHOLM 1990



Division:

Section/ Acquisition and Exchange
Serial Publications
UAP Office
LIBER

162-ACQUIS(WS)-8-E

Workshop

"Will the chain break?"

Differential pricing as part of a new pricing structure for research literature and its consequences for the future of scholarly communication

The international problem of differential pricing for research literature. Final report on a project carried out by the IFLA Section on Acquisition and Exchange

by

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1. Introduction

The price development of research literature, particularly of scientific, technical and medical periodicals is causing a continual deterioration of the purchasing power of academic libraries. As the financial means for acquiring monographs are gradually decreasing, the supply of literature as such - including in the humanities and social sciences - is being endangered. One factor which considerably contributes to this alarming development is the custom of differential pricing which increasingly characterizes the pricing policy particularly of internationally important academic publishing houses.

Since 1987 the problem of differential pricing has been a focal point of the work done by the Section on Acquisition and Exchange.[1] Recognizing the explosiveness of this issue for academic libraries all over the world, the Professional Board of IFLA appropriated means for a special project. The comprehensive questionnaire served the declared aim of the project to inform libraries about the policy of differential pricing and alternative acquisition strategies, on the one hand, and to gather data on the problems of differential pricing, on the other. It was not only to give a clearer idea of the policy of differential pricing and its effects but also of how academic libraries assess differential pricing and what kinds of reactive measures and strategies could be taken into consideration.

Following the preliminary report at the 1989 IFLA-Meeting in Paris, the final report was presented at this year's IFLA-Meeting in Stockholm as part of the workshop "Will the chain break? - Differential pricing as part of a new pricing structure for research literature and its consequences for the future of scholarly communication."[2]

2. Description of the sample

The survey, which was carried out in English, French and Spanish from spring until the end of 1989, included 639 libraries in 99 different countries.

Geographically the sample is structured as follows: 34 % Western European, 24% North American, 18% Asian and Australian, 11% African, 8% South/Central American and 5% Eastern European libraries. From the very beginning it was the intention of this investigation to take into consideration Third World countries, regardless of the fact that most of these countries are faced with an especially precarious budget situation regarding the acquisition of Western European or North American research literature. Their budgets are indeed extremely limited. The aim to provide information about differential pricing came to bear particular weight when Eastern European libraries, albeit in a very limited number, were subsequently included. Because of their general situation so far, they have always taken a special position regarding the acquisition of literature from non-socialist countries.
With regard to the types of libraries included in the sample libraries were chosen on the basis of the World Guide to Libraries. For each country the most important academic libraries - according to their collections and acquisition budgets - were picked, that is primarily the different national libraries followed by university libraries, which quantitatively accounted for the biggest group, as well as parliamentary libraries.

The following evaluation is based on the return of the questionnaires filled in by 247 libraries from 52 countries. The response to this survey shows clearly that differential pricing presents a grave problem for academic libraries all over the world.

A look at the geographical distribution of active participants, among them to a large extent the different national libraries, shows that the 50 % return rate of Western European and North American libraries was twice as high as that of the others. The basis of this survey therefore changes in favour of the Western European and North American regions. This is, of course, not very surprising when keeping in mind that for libraries in Third World countries and Eastern Europe the information aspect of the questionnaire was much more important than that of supplying data.

A few remarkable differences in Western Europe, however, should be pointed out: the return rate of Scandinavian libraries was 75%, that of French, Spanish and Portuguese libraries merely 20%.

I would like to take the opportunity of thanking all of the participants who made the effort to complete the 11-page questionnaire.[3]

3. Structure of the questionnaire

The overall concept of the questionnaire corresponds to the project's aim of informing academic libraries all over the world of the policy of differential pricing and possible countermeasures on the one hand and gathering data on differential pricing on the other.

A 3-page fact sheet explains the different shapes that differential pricing may take. The questionnaire itself consists of four sections. In the first part the questions are aimed at finding out about the financial means available for the acquisition of foreign literature. Subject of the investigation in the second section is differential pricing according to the subscriber's status and the third section concentrates on the subject of differential pricing by geographic region. The final part of the questionnaire, which allows more than the other sections for free comments, asks how, in the opinion of academic libraries, one could or should react to the differential pricing policy mostly forced by multinational publishing groups while looking at this problem in the context of the general pricing policies of academic publishers.

4. Results of the survey

4.1. Financial framework with respect to acquisition of foreign literature

For more than two-fifths of the libraries the share of total expenditure spent on foreign literature is more than 70%, one-fourth of the libraries spends between 50 and 70%, one-fifth spends between 30 and 50% and one-tenth spends less than 30%. All

in all the share spent on foreign acquisitions in the area of serials is naturally higher than that spent on monographs. Whereas in 68 % of the libraries more than half of the money spent on serials is spent on foreign literature, only 54% of the libraries spend the corresponding amount on foreign monographs.

A comparison of the price development of domestic and foreign literature shows that in the case of domestic literature the annual price increase has, as of late, been below 10% for 76 % of the libraries, whereas in the case of foreign literature it has exceeded the 10 % margin for 52 % of the libraries. While in the case of domestic literature only 9% of the libraries refer to price increases of more than 15 %, 24 % of the libraries refer to such price increases for foreign literature.
It must be noted that libraries are generally much more affected by price increases for foreign literature than by those for domestic literature. One may argue that price development of domestic literature is essentially determined by primary price increases, i.e. an increase of the publisher's original price, whereas that of foreign literature is additionally affected by secondary price-determining factors such as postage, service charges and, in particular, currency fluctuations. One has to concede that the increase in foreign postage may generally contribute to higher price increases; one cannot, however, plausibly explain the significantly higher price increase for foreign literature in a global survey by saying that all libraries - Western European ones just as much as American ones - have had to deal with currency exchange losses.

When putting price development, that is cost development in the eyes of the libraries, in relation to a library's budget development, the results of the questionnaire clearly show that during the past few years budget increases have remained behind price increases, not to speak of the increase in the production of research literature. 82 % of the libraries have to refer to corresponding deficits in the development of their budgets. According to the assessment of 48% of the participants who chose to provide more detailed information on this, the gap between cost development and budget development is more than 10 % annually. Considering that this sample includes the most important libraries

this is particularly disquieting. The budget situation is the reason why 73 % of the libraries concerned feel forced to sometimes drastically cut their acquisition programme for monographs and 60 % feel they have to cancel their subscriptions of periodicals and serials.

The continual loss of purchasing power is thus cause enough to believe that literature supplies on a national, regional and university level are increasingly endangered.

4.2. Dual pricing according to the buyer's status

4.2.1 Monographs

In the case of academic monographs, particularly of Anglo-American origin, quite considerable price differences become obvious between hardcover editions, which are targeted at libraries, and paperbacks. If the price for a paperback edition is 15 L and that of the hardcover edition is 55 L, then the price difference does by no means correspond to the costs of machine-made binding; an enormous disproportion is quite evident. In this respect, this marketing strategy has to be seen as one form of a dual pricing policy according to status.[4]

The survey shows that on principle 50 % of the libraries will buy the hardcover edition, whereas the other half will decide individually according to different criteria - such as the estimated frequency of use or placement of the book in the stacks or open-access shelving. For all that, it is remarkable that in the face of striking price differences about 30 % of the libraries have drawn consequences regarding their own acquisition policy. If they need hardcover editions for building up collections, they at least sometimes prefer buying paperbacks and having them bound later.
Such buying strategies may save considerable amounts of money but, as some libraries expressly pointed out, they are not without problems when looked at from different angles. Except for the fact that a later binding often turns out to be technically difficult if at all possible, one also has to take into account the increase in personnel required. Finally one has to consider the question to

what extent non-ageing, acid-free paper is actually used for paperbacks.

The fact, moreover, that for 84 % of the libraries the share of the acquisition budget spent on binding is below 10%, makes it clear that the financial means available for binding monographs are very limited.

4.2.2. Periodicals

Libraries are particularly badly affected by dual pricing according to the subscriber's status in the case of periodicals. While in the past the difference between the institutional price relevant for libraries and the individual rate for private subscribers was at least in part moderate, there has been a tendency in recent years for this price difference to increase drastically. Even if publishers fix the same proportional increase rate for both price categories, there is an increasingly big gap between the two if seen in absolute terms. The rises for library subscriptions are often exorbitant, especially in the case of titles indispensable to research and teaching. They are often five, ten or even 15 times as high as individual rates.[5] Thus the price difference for a title with an individual price of 200 $ may reach 3000 $.

Publishers generally justify mark-ups for libraries by pointing out that there is multiple readership. It would seem idle to bring up the much-discussed question of whether and to what extent the figure of private subscriptions is influenced by the periodicals available in publicly accessible libraries. Another argument often used by publishers - how else could it be - is the fact that there is always the possibility of copying works. One is sometimes even confronted with the thesis that in the end libraries benefit from dual pricing, as this favours private subscriptions and indirectly keeps the institutional rate relatively low. This is an argument, of course, which has lost its persuasive power in the face of prevailing price policies and indeed, sounds almost cynical.[6]

The basic question of whether dual pricing according to the subscriber's status is justifiable was answered with "no" by 59%

of the libraries. 41 %, in contrast to this, basically accept this price policy. This assessment reflects different copyright regulations regarding, in particular, copy compensation and lending royalties that libraries are asked to pay. German libraries and those who maintain them, for example, have to pay lending royalties. By asking them to compensate for multiple use they are basically paying twice for the same thing, and it is therefore not surprising that they are strictly opposed to mark-ups for library subscriptions. In the case of the libraries which principally consider this policy of dual pricing (according to the subscriber's status) to be justifiable, this acceptance is limited to certain dimensions: 65% are of the opinion that the supplementary charge for a title whose individual price is 100$ should not be higher than 30%. The differences which cause especially high-priced titles to reach prices that are far higher than the individual rate are virtually incomprehensible to libraries.

Although one gets the impression from this survey that libraries may still be underestimating the actual extent of the discrepancy between the two different prices, it becomes clear that at least a third of the libraries make successful attempts to buy somewhere where prices refer to the individual rate. These attempts are made from time to time only, particularly in situations where titles are subject to extremely high mark-ups. It is somewhat surprising that these rudimentary attempts of libraries to defend themselves - true for only a few US libraries anyway - are ethically questioned.

Another possibility of considerably weakening the effects of a dual pricing policy is to become member of a society, as long as - in spite of membership fees - prices for periodical subscriptions are lower. In this case there are - besides the two basic rates - usually two other reduced rates for individual and institutional membership. 58 % of the libraries have chosen this possibility in order to save money when subscribing to periodicals. Doubtless, these means of reducing costs have not yet been exhausted by academic libraries.

4.3. Differential pricing based on geographic location

4.3.1. Monographs

An increasing number of academic publishers is fixing prices for monographs to be sold abroad that are noticeably higher than the publisher's original price in the country of origin.[7] In this context it is irrelevant whether prices are fixed in domestic or in other currencies. It is particularly Anglo-American publishers producing in the U.S. as well as in Great Britain who sometimes even consciously try to cover up the country of origin in order to make it more difficult for libraries to find out the original, i.e. the cheapest price. A stiffer form of differential pricing based on geographic location is the must-order-direct policy (MOD) being adopted by several publishers - such as Scribner - in combination with the monopolization of distribution on foreign markets by signing exclusive-supply contracts. This enables publishers to demand drastically increased prices on foreign markets.

The questionnaire made it possible for libraries to list different possibilities of acquiring foreign monographs and to weight their answers; a look at these shows the following order-of-priority, regardless of regional differences: The most important sources are the library supplier in the country of origin, secondly domestic library suppliers or the local bookseller which were followed, with clearly less priority, by direct acquisition from the publisher and other sources.

The survey reveals that 93% of the libraries when faced with exclusive-supply contracts in combination with a MOD-policy consider themselves incapable of finding alternative sources of acquisition. Disregarding these distribution strategies of publishers it becomes clear that libraries are, however, basically in the position to circumvent differential pricing based on geographic location for monographs by buying in the country of origin at the publisher's original price. The extent in which this acquisition policy is realized, however, highly depends on the

libraries' knowledge of acquisition methods as well as the library supplier's efficiency.
Considerations such as promptness of delivery cause 73% of the libraries to accept - in certain circumstances - excessive export prices.

The evaluation of this questionnaire suggests the conclusion that in some places libraries have not intensively dealt with the problem of differential pricing of monographs and that these, in many cases enormous price differences are still being underestimated. It has to be assumed that a significant number of libraries acquire foreign monographs at export prices, although the degree in which publications are marked up has to be taken into careful consideration. While mark-ups of 40 or 50% and more are beyond any tolerable limit, libraries will hardly be able to object to moderate mark-ups based on actual costs - such as warehousing costs, postage, and in certain cases taxes - especially since acquisition may be speeded up in certain circumstances. In the end it is decisive for libraries to be able to refer to original publishers' prices as a basis for calculating the invoice amount when buying either from library suppliers in the country of origin or from domestic booksellers. In other words, foreign library markets should not, in comparison to home markets, be subjected to price discrimination. Whether and to what extent postage, service charges or other charges arise should remain subject of the negotiations between libraries and booksellers. Libraries clearly reject publishers' attempts to undermine this possibility by fixing export prices and enforcing certain distribution policies.

4.3.2. Periodicals

The effects of differential pricing based on geographic location are even worse for periodicals than for monographs. In many cases publishers determine prices for their periodicals to be sold on foreign markets that are often considerably higher than the publishers' original prices on the home market. And if these prices are fixed in foreign currencies, they cannot be justified with the argument of providing cover against currency exchange

losses. Sometimes foreign markets are virtually split into different price zones.
I do not think it needs to be expressly mentioned that costs arising from shipping - particularly postage - have to be paid by the recipient libraries and are therefore, of course, not subject to discussion. Nonetheless this has to be emphasized since it is sometimes insinuated by publishers that libraries are naive to the point of being ignorant, suggesting they are demanding uniform prices including postage, which would, indeed, amount to a subsidization of foreign markets by domestic prices.

Among the different ways of acquiring foreign periodicals international subscription agencies play the most important role. Far less important are direct orders from publishers, acquisition from the library supplier in the country of origin and from domestic library suppliers and local booksellers.
While in the case of foreign monographs differential pricing may basically be circumvented, this is generally not possible for foreign periodicals. Since individual issues are directly shipped to the library by the publisher even if subscribed to via an agency, the subscriber's real address is known to the publisher; in other words the publisher has the information required to enforce differential pricing.
Of course there are also ways of circumventing excessive prices for periodicals. By buying round, that is buying from the branch office of an agency or a bookseller in the respective country of origin, periodicals may be subscribed to at the home market price. In this case the issues are not shipped directly to the library but via the agency's or bookseller's address. 21 % of the libraries choose to buy round in certain regions of publication. This method of acquisition, however, is subject to two conditions: firstly, the price and discount structure of the respective package of periodicals must be such that paying the costs for additional service is economically reasonable; secondly, the library's address should not be subject to disclosure to the publisher, something, however, that is increasingly difficult to avoid, as some libraries emphasized.
Another method of avoiding geographic price discrimination is to acquire overpriced export publications through foreign library exchange-partners at home market prices. This method, taken into

consideration by 35% of the libraries, is, when taking into account the considerable added expenses, possible only in special cases, for example if high priced titles are subject to extreme mark-ups for export.

It is obvious that libraries deal much more intensively with the problem of differential pricing for periodicals than for monographs. One fourth of the libraries listed publishers and titles of periodicals which have become particularly conspicuous. Gordon & Breach was mentioned most often. In some cases libraries enclosed their own reports. The great awareness of this problem is also reflected in the fact that some of the libraries make calculations of the additional budgetary burden resulting from differential pricing. When big libraries come up with a figure of up to 200,000 or 300,000 $, then this can hardly be considered a quantité negligéable, even if one interprets it benevolently. Whereas dual pricing according to the subscriber's status is, to a certain extent, accepted by some libraries, differential pricing based on geographic location is on principle rejected by almost all libraries. Libraries emphatically support the demand that academic publishers should not fix different mark-ups, either in their own currency or foreign currency, for foreign markets, adjusting them to the respective market conditions, but should basically determine one original price in the currency of the country of publication, valid for all markets in the world.[9] Considering the services offered by agencies or library suppliers, the argument cannot be sustained that the fixing of prices in foreign currencies, which, especially in the case of periodicals, involves great currency exchange risks and other problems is necessary because of certain problems that might be caused by payment transactions.
In spite of all that, however, it is an indisputable fact that the costs arising from higher foreign postage have to be paid for by the recipient library.

4.4. Reactions of the libraries

The final part of the survey is targeted at possible strategies that enable libraries to react to this - as academic libraries perceive it - alarming development. In the face of an inflationary

price development in many parts this situation has become so critical that the literature supply, the international dissemination of fundamental research results and consequently communication among scholars seem to be seriously endangered. The workshop of the IFLA Section on Acquisition and Exchange with its title "Will the chain break?" discusses precisely this question of "the consequences for the future of scholarly communication".

In a brief summary the ideas as formulated in the questionnaire are outlined regarding ways of how one could or should react to academic publishers' pricing policies in general and differential pricing in particular.
Starting from their present situation, academic libraries must not concentrate their efforts on fund raising any longer.

It is much more necessary, and this is a tenor which was conveyed by the statements, to increasingly concentrate on the pricing policy of publishers particularly with regard to periodicals. The line of argument used by publishers must therefore be questioned critically, for example when price increases which go far beyond the general inflation rate are justified with an increase in volume and a decrease in the number of subscriptions or when publishers express the idea that because of strong competition among publishers the self-healing powers of the free market should function as price regulatives. It has been shown, after all, that especially periodicals which have to be considered indispensable and show extremely little fluctuation in demand are sometimes subject to exorbitant price increases or extreme differential pricing. It is therefore important to question the connection between price increases that are no longer based on cost developments and the market control which a publisher may exert with certain, basically irreplaceable titles.
Emphasis has repeatedly been placed on the conclusion that the price policy of academic publishers, particularly that of multinational or international publishing groups, will have to be investigated to a much greater extent. The analyses will have to be comprehensive and differentiated in order to be able to take into account the different factors that determine price structure and development. So far our American colleagues have been the ones who have dealt with this topic intensively - I would just like to

mention the Serials Prices Project initiated by the ARL in 1988.[10] It is imperative for libraries to concentrate their efforts on creating a broad basis of information in order to be able to critically assess pricing policies in the future. Looking at it from this angle the legal proceedings that Gordon & Breach have instituted against Henry H. Barschall are indeed of fundamental importance as they question the right to carry out such investigations.[11]

In the survey, the libraries stressed that the analysis of pricing policies, particularly of differential pricing, requires close international cooperation. This is important not only with regard to sharing the work involved but also, considering the tendency towards mergers and international interlocking, with regard to being able to effectively oppose internationally active publishing groups. Information as to which institutions, working groups or individual librarians in different countries are working on this subject is, therefore, quite valuable. The next step will be the establishment of a clearing office at IFLA or on a European level in cooperation with LIBER, which is to form the basis for an exchange of information and consequently the coordination of planning and carrying out work projects.

An important task is seen in providing libraries with comprehensive and topical information on the pricing policies of publishers. Publications in library journals would have to inform about extreme forms of differential pricing of individual publishers but also about alternative methods of acquisition and legal authority regarding countermeasures, such as the fact that publishers in EC-countries are not allowed to prevent libraries in EC-countries from buying literature in the country of origin at the respective home market price. Only an efficient information policy - such as the electronic "Newsletter on Serials Pricing Issues" of the ALA/Association for Library Collections and Technical Services - will create greater awareness of this problem and will enable libraries to come to more concrete conclusions also with regard to decisions on acquisition. If all relevant pricing policies are subject to critical observation, if they are convincingly documented and denounced in library circles, this will most certainly not be without effect on publishers.

91 % of the survey's participants stressed the fact that academic libraries should, together with the book-trade, which is faced with clear cuts in publishers' discounts, strive for direct contact with academic publishers. To the degree to which they are able to base their arguments on well-founded analyses, they will be able to enter upon a dialogue with publishers that will not exhaust itself in a mere exchange of commonplaces. Library organizations should make it clear to publishers on a national and an international level just how far-reaching the effects are of a pricing policy which is exclusively geared toward maximization of profits and subjects research literature to the same laws of marketing as other products. The question of whether research literature, which does possess certain characteristics of a good, may be reduced to the level of such a good, needs to be discussed. In a direct dialogue, the cost-saving effect of new technologies applied in production, which is often played down by publishers, would have to be discussed as well as the publisher's function as a selective authority, particularly since publishers often introduce their central argument of a volume increase when justifying price increases for periodicals.

The success of libraries in discussing pricing policies with academic publishers will absolutely depend on the extent to which libraries are willing to act in unison, for example by demanding explanations for certain price policies at a given time or by promising or actually carrying out cancellations. Although such specific measures as concerted cancellations are not without complications, it seems quite remarkable that 63 % of the libraries consider them to be an approved means of putting pressure on publishers.

The position of libraries in comparison to that of publishers would certainly improve if they succeeded in winning the support of scholars in their double role as authors or editors and users of research literature. 88% of the libraries consider it therefore an important task to inform those involved in research and teaching at universities about the pricing policies of academic publishers and their fatal effects on the supply of literature. Librarians in the USA and partly in the Federal Republic of

Germany, too, have successfully embarked upon this route. Our information policies must therefore not limit themselves to the forum of periodicals relevant to libraries but must address target groups outside of libraries in such publications as, for example, "Nature" or "Science".

Libraries not only express their ideas of how one could successfully oppose the pricing policy of academic publishers but, in addition to this, they also think about fundamental approaches and perspectives.
Thus it is particularly American libraries which have made it clear with regard to the serials pricing issues that they are decidedly of the opinion that research is not dependent on commercial publishers for the publication of its results. Instead, the idea is propagated that non-profit organizations should regain greater importance in the area of academic publications. There is an increasing tendency towards employing alternative forms of electronic publishing.[12] Finally, basic questions as to the building-up of collections are being discussed. In the face of the challenges of the international literature market, it becomes increasingly pressing to develop coordinated concepts for acquisition policies on a local or university level as well as a regional and national level, which will ensure the supply of literature on the whole.

5. Prospects

The project of the IFLA Section on Acquisition and Exchange has met with great interest and broad approval from academic libraries. This was shown by the amount of questionnaires returned and the comments, in which the initiative of the Section on Acquisition and Exchange was not only welcomed but also emphatically supported. The positive reaction to this questionnaire shows that the policy of differential pricing is causing alarming problems for academic libraries all over the world.
Even if there were only few comments in which opinions were expressed so clearly as in the one by that colleague from Kenya who called the questionnaire an "eye opener", one may presume that this survey has contributed to reducing considerable information

deficits. Moreover it has stimulated an intensive and independent discussion of these questions in individual libraries as well as on a national level, as was shown in the case of Japan.[13]

The chances of successfully causing publishers to give in on the the question of pricing policies and differential pricing are still assessed with skepticism. Despite the fact that there is no reason for naive, unrealistic optimism there is, nonetheless, a general consensus that libraries cannot remain in a passive and resigned attitude but will have to face the challenge of dealing openly and competently with publishers without seeking confrontations. The position of libraries is not without hope if libraries cooperate more closely on this question on a national and international level and if they plead their cause in solidarity. It was the aim of the IFLA Section on Acquisition and Exchange to provide an initiative for this.

1) R. Griebel: Project: dual pricing (books and periodicals): proposal for Medium Term Programme (1987); Newsletter of the Section on Acquisition and Exchange 1, Autumn 1989, S. 13; U. Montag: Differential pricing in the international bookmarket. Lecture on the 54th IFLA-Conference in Sydney, 1988. In: IFLA Journal 15, 1989, S. 37-43; R. Griebel/U. Montag: Das internationale Problem der gespaltenen Preise für wissenschaftliche Literatur: Zwischenbericht über ein Projekt. In: IFLA General Conference <55, 1989, Paris>/Section on Acquisition and Exchange, 60-Acquis-2-G, S. 50-7 - 50-10 (see also J.C. McDermott: Section on Acquisition and Exchange. In: Library of Congress Information Bulletin, 15.1.1990, S. 38-40; Newsletter on Serials Pricing Issues, 15.10.1989, S. 1).

2) The selective bibliography contains bibliographical data referring to the price policy of academic publishers with special consideration to differential pricing.

3) Among questions that were asked at an international inquiry in English, French and Spanish, several linguistic misunderstandings were indicated.

4) The price policy of "World Scientific Publishing" (who exclusively distributes paperback editions to developing countries) shows that established price differences between paperback and hardcover editions could be a geographical price-splitting measure.

5) Here are several examples from Pergamon Publishers:

	personal subscription rate (=100 %)	institutional subscription rate
Journal of Clinical Epidemiology	85 $	475 $ = 559 %
Physiology and Behavior	195 DM	1.565 DM = 802 %
European Journal of Cancer	220 DM	1.490 DM = 677 %
Life Sciences	259 DM	2.860 DM = 1.104 %
Tetrahedron	425 DM	5.950 DM = 1.400 %
Tetrahedron Letters	348 DM	5.600 DM = 1.609 %

Prices are relating to 1990.

6) Librarians even take this idea into consideration (M.E.D. Koenig: Serials dual pricing: the librarians' hobgoblin. In: The Serials Librarian 8, 1983/84, Nr. 3, S. 25-28).

7) Sporadically, prices for the foreign market are established lower than the original prices, especially for developing countries - this also includes prices for periodicals (see also U. Montag: Differential pricing in the international book market. In: IFLA Journal 15, 1989, S. 42, Anm. 8).

8) M. Wiesner/H.-J. Zerbst/B. Mahr: Der FAST-Service der Zeitschriftenagentur Swets. Erfahrungen und Überlegungen in zwei unterschiedlichen Universitätsbibliotheken. In: Bibliotheksdienst 21, 1987, S. 1227-1239.

9) The fact, that some libraries demanded lower prices for developing countries does not contradict this fundamental postulate.

10) Economic Consulting Services: A study of trends in average prices and costs of certain serials over time. Washington 1989; A. Okerson: Of making many books there is no end: report on serial prices for the Association of Research Libraries. Eastchester 1989.

11) See American Library Association: Resolution on free scholarly discourse. 10.1.1990

12) "If scholars and librarians can't communicate easily through publishers, we must learn to communicate around them". (R.M. Dougherty/B.L. Johnson: Periodical price escalation: a library response. In: Library Journal, 15.5.1988, S. 28).

13) Sh. Nakano: Differential pricing: libraries are the losers. IFLA survey seeks to determine the extent of their loss. In: Japanese Library Journal 83, 1989, Nr. 4, S. 190-191, (English translation in: The Kinobridge 2, 1989, Nr. 4, S. 2-3).

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"Will the Chain Break?":
Authors and editors aren't worried--for now

Richard M. Dougherty
President, American Library Association
Editor, Journal of Academic Librarianship

Presented at workshop organized by
IFLA Section on Acquisition and Exchange
Thursday, August 23, 1990
at the 56th IFLA General Conference
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"Will the chain break?" It's an intriguing question. The answer probably reflects one's special perspective. Publishers are likely to respond, "No, it's not broke, it's only under stress." Librarians might counter, "It's not yet broken, but it may soon snap." Editors may feel overworked, but are not concerned, their future is secure. And authors? Most of them are satisfied with the current situation. I hope my remarks will further explain why there might be such a diverse spectrum of attitudes.

I've been asked today to examine the question of "Will the chain break?" from the perspective of editors and authors. As a librarian who has been deeply involved in the battle against

runaway prices, this was a challenging assignment. It wasn't easy to step back, but it was a valuable exercise because it forced me to think about important issues from a point of view that we librarians sometimes ignore.

Authors and editors are obviously vital links in the scientific/technical communications chain. In order to appreciate their points of view, one needs to consider the environment and the forces that drive the current system forward.

As I've already noted, we librarians probably agree that the current system is under great stress. And, to the extent that libraries constitute a major share of a publishers' market, publishers too are in serious trouble. But libraries constitute only one segment of the market, so some publishers are more affected by the loss of library subscriptions than are others.

When assessing the environment, what I find particularly ominous is the general worldwide economic backdrop. At least in the U.S. there is very little cause for optimism. We are struggling with huge budget deficits, and the threat of another destabilizing energy crunch looms large. If current funding levels of libraries persist, and I think they will, further cancellation of serial subscriptions appears inevitable. Such cutbacks will force libraries to become more dependent on

external sources for document delivery to users. In such an environment, libraries must increasingly rely upon interlibrary loan arrangements and, where available, commercial document delivery services. A prolonged period of retrenchment could fundamentally alter the way libraries in the U.S. deliver documents.

With libraries cutting back, how will publishers respond? They will act to protect, if not enhance, revenue streams. This will be accomplished largely through increased subscription prices. Keep in mind, I'm not referring to commercial publishers only. We must not forget the society and professional association publishing sector. This group's production is significant. These publishers will also raise prices. They will do so in order to maintain their ability to fund their various membership programs. Many societies and associations currently fund programs from publishing revenues. It is publishing revenues that enable many societies to maintain low subscription rates to members. So, we can expect price increases from this publishing sector.

The scenario I've sketched strongly suggests a continuation of what I characterize as a war of attrition. It is possible, as Griebel and Montag point out, that libraries working together could forge "...sanctions against certain publishers....Actions such as concerted cancellations or refrains from purchase should

not be lightly attempted because these measures are difficult to manage."[1] Unfortunately, such actions, though appealing to a librarian, won't have much influence on most publishers. But if librarians had the final authority on what to purchase or what to cancel, sanctions under those circumstances could prove to be a very effective tactic.

But in the meantime, as libraries cancel subscriptions, user access to journals through libraries will decline and faculty and librarians will both become frustrated as access becomes slower and more problematic. These frustrations will eventually move universities to take action. The question is, what actions will occur?

What is not yet clearly understood is that an alternative scientific/technical communication system is slowly but inexorably evolving. In many of our countries, there is a move to create nationwide systems of electronic highways. In my view, these developments are among the most significant that have occurred in my professional lifetime. Electronic communication systems will transform how we are educated, do business, conduct science, and how we communicate. They will determine which countries and which organizations are most competitive in the world marketplace.

In the United States, universities are very much involved in this effort. Congress is now considering enabling legislation. This national effort sprang initially from a recognized need to improve the use of supercomputers in the conduct of Big Science. The system I envision will support not only science and engineering, but many other functions as well. Gradually the network will be expanded to include access for Federal and private laboratories, corporations, schools and libraries in large and small communities.

Colleagues, it should not take too much imagination to realize that before long our national science and research establishments will have created de facto electronic means for communicating scientific and technical information. In such a world, people will begin to ask, "What is the purpose of the traditional paperform journal?"

Let us now return to the publisher/library war of attrition I referred to earlier. Prices continue to increase, and libraries are forced to cancel more and more titles, thus precipitating further price increases, and all the while users are becoming more frustrated. These developments need to be juxtaposed next to the network project and the economic backdrop in which our universities exist. Strained budgets will motivate universities to seek and exploit new sources of revenue, and there will also be a desire to justify the costs of creating

that nationwide electronic network. Why not use the new electronic system as the channel for scientists to communicate the results of their work? What would be the logical next steps in such a scenario?

I believe research-oriented universities will become more active as publishers. They control, in a manner of speaking, authors, editors, and readers; and they have the capital to underwrite a publishing enterprise. Initially, such ventures might be only extensions of traditional paperform publishing, or publishing efforts might yield both paperform and electronic products. How university publishing ventures were structured would, I expect, reflect existing markets. But the bottom line is that there is money to be made from publishing and universities are resource-hungry.

Universities will also find it advantageous to control copyrights of work produced by members of their faculties. This action might occur whether or not universities became active as publishers. It would not be designed, in my view, to make money but to save money; that is, universities would not have to pay exorbitant subscription rates for research produced by their own faculty. And, by controlling copyrights, universities could insure free and economical access to information transmitted via the electronic highway system the universities themselves helped to create.

What I am suggesting, then, is that over the next decade, we might well see the current war of attrition between publishers and librarians stimulate the development of a new scientific and technical communication system.

Now how will this affect authors? What has been the reaction of authors to the subscription rate dilemma faced by librarians and why? For the most part, researchers as authors have remained aloof from the battle against high prices. Many have expressed concern and many are perplexed, but I'm afraid they'll remain largely detached unless they become directly affected.

When examining the role of authors, we have to keep in mind that the current scientific/technical communication system is supply-driven. There really is no general demand for more information from users. In fact, as some governmental officials concede, we are already drowning in information. We can't manage what is already available.[2] The system is driven by the desire of authors to get their work published, to seek recognition through publication since that is the primary way to succeed professionally and economically. The pressure to publish is often characterized as the "publish or perish" syndrome. So long as the publish-or-perish mentality prevails, one can expect the quantity of publications to expand as more

and more scientists and engineers take their places in universities, corporations and government laboratories. So far, most researchers, while concerned about what is happening to libraries, have not exhibited outrage. What they want most is to be assured that the journals in which they publish are available in their libraries. Fred Spilhaus, of the American Geophysical Union, suggests a variety of actions concerned scientists could take to help libraries and to express their displeasure over the journal prices. Spilhaus recommends:

- Don't wait for a librarian to ask you to suggest titles for cancellations.
- Don't submit articles.
- Don't let your name be used to keep a bad journal alive.
- Take care not to be misled; consider price per article.[3]

Scientists don't seem to be rushing to heed Fred Spilhaus' advice. The reasons are simple. First, so long as scientists see their work published and so long as they are not directly impacted by the current situation, why become involved with the library's problem? But for a moment let us speculate on what might happen if scientists did become directly accountable for the costs of publications. When I state "directly accountable" what I mean is that increased subscription rates affected scientists directly. At present journal subscriptions are paid for from institutional library budgets. But what if scientists

were expected to choose between increased travel funds, maintaining secretarial support, buying a new computer, or even an annual salary increase increment, or continuing a subscription to a prestigious, expensive journal? In point of fact, this is the trade-off that is already occurring to some institutions, whether the scientists know it or not.

If scientists perceived that the increasing costs of journals were affecting their personal academic standard of living, their reactions I submit would be predictable. We could expect more subscriptions cancelled, and that among the cancellations would be many so-called prestigious journals. These titles would become casualties because there is not always a strong correlation between prestige and use. With scientists more accountable, actual journal usage would become a major factor in deciding what a library would and would not subscribe to. If this were to occur, many librarians would quietly smile; they have known this for years. Actually, the absence of a strong relationship between usage and prestige was identified in a recent study at Texas A&M.[4]

I'm not in favor of forcing researchers to make choices between personal support and journal subscriptions. When academic units are expected to fund their share of the journal budget, libraries will be squeezed, caught in the middle. Some departments will support library acquisitions, others will not.

Life becomes strained for both librarians and faculty and there is a risk of pitting the library against academic departments. But if scientists felt pressured, journals subscribed to for prestige purposes only would be at risk. Wouldn't that situation give publishers reason to pause? In the final analysis, authors are likely to become active participants in the current battle only if they perceive their ability to be published as jeopardized.

What about editors? They comprise one of the stronger elements of the scientific communication chain. However, some changes are occurring. Commercialization of scholarly publishing is reshaping the attitudes of editors and readers. There is, I believe, a greater expectation for financial remuneration. Editors are less likely to view their editing activities as a service to their profession or discipline. As is now generally known, the editors of scientific and technical journals often command handsome honoraria and a variety of non-monetary supports. This is another sign that publishing has become big business.

The work of editors will be affected by information technology and electronic networks. The tasks they perform, the way they interact with readers and authors will all change. But the task of translating, clarifying and improving what an author has to say will remain constant. Editors will continue to

improve the value of communication, whether it is packaged in paperform journals or stored in electronic databases. I smile whenever I hear someone talk about electronic journals not being reviewed or edited. If that person had ever served as an editor, he or she would know full well that unvetted and unedited electronic publications will not be read. That is as certain as day follows night.

What can we expect for the future? I believe some version of the scenario I sketched at the beginning of my presentation will gradually evolve. Articles will be produced electronically, retrieved via databases and distributed via electronic communication networks. Articles will become the unit of exchange; journal issues will become less important.

How quickly these developments occur will depend on a number of factors:

1) the availability of money;

2) the rate at which paperform publication prices rise. The higher the prices, the greater the incentive to create new and alternative modes of communication.

3) academic reward system. If universities and corporations were to accept electronic forms of communication in lieu of journal articles as the basis for granting rewards, we would soon witness a changed pattern of publication.

4) the shackles of "publish or perish" syndrome. A few universities are beginning to limit the number of publications researchers may use to justify requests for promotion or tenure. If publication limits were generally adopted, reductions in the number of articles published would occur, we might see a change in the nature of what is published; for example, articles might become longer, more complex, and better written. Why? Because quality would become more important than quantity.

In the final analysis, the question may not be "will the chain break", but rather, will it gradually become less relevant to certain disciplines as current trends drive prices higher and higher and hasten the creation of a new and dramatically different communication chain.

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[1]Rolf Griebel and Ulrich Montag, "The international problem of differential pricing for research literature," Preliminary report on a project. Presented at the IFLA General Conference and Council Meeting, Paris, 1989. P. 13.

[2]Albert Gore, "Remarks on the NREN." EDUCOM Review, 25:2 (Summer 1990), p. 13.

[3]"American Association for the Advancement of Science, 1990 AAAS Annual Meeting, 15-20 February 1990, New Orleans, LA. (Summary of comments by Fred Spilhaus as reported in) Serials Review, Spring 1990, p. 114-15.

[4]Marifran Bustion and Jane Treadwell, "Reported Relative Value of Journals versus Use: A Comparison." C&RL, March 1990, pp. 150-51.

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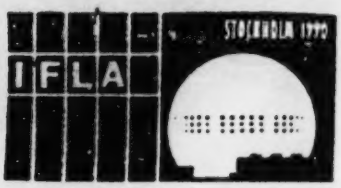

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CD-ROM: IMPACT ON THE INTERLENDING AREA

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ABSTRACT

CD-ROM is becoming very popular for storing both large bibliographic databases such as union catalogues and full text information which has some cohesion by subject. The use of this technology has had far ranging effects on document supply systems. It can offer high speed, high quality document copying together with the potential for telecommunications links which will enable the reader to request and receive a document within minutes. The problems of limiting access and charging need to be examined very carefully. There may well be changes in the patterns of document supply as CD-ROM grows with requests being attracted to a limited number of centres and problems arising when documents are stored in a variety of ways. The development of centres handling different media may well be a growing phenomenon unless traditional document suppliers are ready to adopt a multi-media approach both for the documents they store and the methods by which they are requested.

CD-ROM: IMPACT ON THE INTERLENDING AREA

Graham P Cornish

There can be no doubt that CD-ROM has had, and will continue to have, a major impact on the information world. It has a number of technical and economic advantages over online storage and searching and is bringing a considerable revolution to the reference library as well as to the academic researcher.

Nevertheless it is important to ask if these major changes will be reflected in the pattern of interlending and document supply in the present and the future. CD-ROM was hailed as one of the great developments in document supply. But is this really true? In the excitement of the development of a new technology there is a temptation to see it as a panacea even if it is not designed for this role. Attempts to fit the malady to the cure can often cause the patient more pain than was being suffered before. So it is important to make a proper diagnosis before prescribing a remedy! For a good document delivery service to function well there are certain basic criteria which must be fulfilled, at least in part, before the system will be satisfactory. These are: need, collections, access, availability, communications, systems and finance. It may be useful to look at these elements in turn to see how far the use of CD-ROM enables them to be achieved.

Need

If there is no need for document supply then there will be no system. There are few places or communities in the world where this is true, certainly not in the developed world or those countries trying to advance their economic development.

Lack of need may be because local resources are so good that documents from elsewhere are not required or because there is no perceived need, in other words the reader does not know that other documents are actually required.

In both of these areas CD-ROM has a role to play. On the one hand it can provide storage for large quantities of documents and information so that local needs can be more fully met from this new technological warehouse; on the other hand it can be a medium for storing and disseminating very large quantities of bibliographic data, thus making the reader aware of the limitations of local collections and stimulating a desire for more documents than can be readily available. However, CD-ROM cannot provide for technical, economic and legal reasons, all the documents which might be needed. It can, in fact, stimulate demands which cannot be satisfied by making the reader aware through extensive bibliographic data of what is not available. Thus CD-ROM can create need, and to some degree satisfy that need for a document supply service but may also leave some of those same needs unsatisfied.

Collections

There is no doubt that CD-ROM is capable of providing the medium to enable libraries to have very rich and high quality collections of material. The technology allows the storage of huge quantities of text and data in a way which is not possible with conventional paper and, also permits better and deeper access to the contents of those collections stored in this way. Libraries are able to store materials in a way which was not previously possible and can enrich their collections by acquiring considerable quantities of text at increasingly competitive prices. Back runs of journals and unpublished data are two examples of material more easily purchased than previously. However, CD-ROM is not suitable for storing small quantities of data and libraries are obliged to buy

large packages of information which has been pre-packaged by the supplier to suit a pre-determined market. So a library wanting a large number of biomedical journals may be able to acquire these readily but libraries working in more specialised areas or areas in which the CD-ROM publishers not identified sufficient material or acquired sufficient rights will not benefit from this technology. There is a danger that good collections with ready access will be available only to those areas of high economic returns, leaving the remainder to function on a lower technological plane.

Access

Access to information about what is where is vital to any document supply system. CD-ROM has two very important roles to play here. Firstly, the more obvious is that it is an ideal medium for mounting large quantities of bibliographic data such as union catalogues, finding lists and the holdings of major library collections such as the National Library of Congress or the British Library. This information can be made available quite easily and updated regularly. Although updating will not be as current as online catalogues, the need, especially for serial holdings, is probably less urgent than in some information areas. Thus one library can have available a large number of records and locations. In addition, records can be accessed via many more entry points than is possible with printed catalogues and extensive searching can be carried out without the expense of connect charges and online database charges. The disadvantage to this is, as with all major catalogues, that they are not integrated and it is still necessary to search several records before the required item may be traced.

The second important role that CD-ROM can play here is in the way that full text documents are released. Once the amount of a particular CD-ROM is determined by

the supplier then whichever library buys that CD-ROM gets the same package of journal titles or data or whatever it contains. This means that a union catalogue of CD-ROM holdings is far more efficient than a union catalogue of individual serial titles. Once a library is known to hold a specified CD-ROM then it is automatically known to hold particular journal titles and specified years of each title. Problems with holdings records, gaps in sets, missing issues and uncertain title records are eliminated. Thus CD-ROM can both inform about a variety of holdings and also provide the certainty that some documents are held.

Availability

CD-ROM can do little to help availability of large general collections. It may well lead to frustration, as mentioned before, because it provides access to information but not the documents themselves. However, it does play a positive role for those documents for which it is the carrier. The medium can make available documents which might not otherwise be still in print or available through a single source. It can also give a library the facility to make available in its area a wide range of documents which would not otherwise be held in the area at all. Thus CD-ROM may well encourage the development of centres of excellence in particular disciplines or types of information. It will then be up to the library which subscribes to the CD-ROM how available the content can be made to other readers in the area. With growing interest in reciprocal borrowing instead of interlending this is an important facet of CD-ROM facilities. As far as document supply itself is concerned this can be a double-edged sword. Certainly some libraries may be able to offer quite extensive document supply services from their CD-ROM holdings but producing paper copies from CD-ROM is something which can be restricted by licence (contract) between the supplier and the library. Thus it is conceivable that making paper copies for document supply

could be restricted or prohibited by the CD-ROM publisher or it may be allowed only on certain conditions or at quite high prices. Any restrictions of this kind need to be monitored very carefully and, as the technology grows more complex, it will become possible for suppliers to monitor or even inhibit copying beyond the limits of the contract. Of course, CD-ROM has the capability of offering high speed, high quality copies to anyone who needs them and we should not confuse the abilities of the technology with the limitations of the law and economics.

Communications

An essential element in any document supply system is good communications. There is little point in having good quality collections willing to share their resources if it takes several days, or even weeks, for readers to obtain the document they need. Although this may be not be quite such a problem in the humanities, certainly for scientists and, increasingly those working in the social sciences, speed is an essential element. CD-ROM is a static storage method and it would seem unlikely that it can contribute to the overall improvement of communications. However, the development of interfaces with other technologies is advancing rapidly and we are not far from the situation when CD-ROM can be linked with both electronic messaging and fax to provide a high speed, high quality, document delivery system. In the past the transmission of requests has been improved considerably by using telex, electronic mail, computer databases and the voice-telephone. The use of fax is growing for this purpose but is still limited for administrative reasons, but the transmission of the documents has been somewhat slower, depending mostly on the moving of paper from one place to another by traditional postal services. Even the growing use of fax has only particularly solved this difficulty, partly because of the present problems of having to make a copy before it can be transmitted but also simply

because there is still the need to retrieve the document from the library shelves and take it to the photocopier which must be done by a human being! CD-ROM eliminates this problem as requests can, even now, be received at the workstation and dealt with immediately and the end result faxed to the reader. However, the technology is now very near, and may already exist by the time this paper is read, for the CD-ROM to be linked direct outside communications systems and the reader will be able to search the CD-ROM directly in just the same way as any other database. Requests for documents identified as interesting will then be made directly using the link to the CD-ROM which will automatically send a high quality copy of the article directly to the reader using the same basic technology as fax. This means that in a minute or two a reference can be identified, the requests made and the document received. Of course there are no transmission delays nor delays caused by the moving from one medium to another (electronic message to human being to paper to electronic message). In addition such problems as items being on loan or away at the binders or even being used by another reader are all avoided.

Systems

For any interlending or document supply system to be effective it must be as simple to use as possible. Complicated and bureaucratic paperwork, complex methods of charing, differing bibliographic standards and requirements and linguistic misunderstandings are all contributory factors to making a document supply system inefficient and unused. CD-ROM has the potential to do away with almost all of these. As it is a paperless medium there should be no problems with form-filling. However, there will be a tendancy on the part of some librarians to keep some element of paperwork because, without it, many feel insecure and that transaction has not really been documented. This temptation must be avoided. CD-ROM can provide simple and easy access with user-friendly

software which allows the reader to access the information required quickly and simply. Payment should not be a major problem. CD-ROM publishers prefer standard charges and the technology now allows the monitoring of use of the contents of CD-ROMs so that charing can be done automatically. The problems may come when the disc is accessed by another library which may then have to pay the host library for use of its CD-ROM. What a tragedy it would be if this element in the transaction became cumbersome and so expensive that it discouraged people from using the system at all. The few barriers we erect in the document supply system the more it will be used to the mutual benefit of readers and suppliers.

Finance

Every system must have a sound financial basis if it is to operate at all. Mere goodwill arrangements work only until the use of the system becomes significant. Once use begins to grow there are bound to be administrative and other costs to be paid and inevitably charges are introduced or some other way is found of meeti g the costs. In this respect CD-ROM is no different from any other type of storage facility. However, the product is not cheap to buy or subscribe to and these costs must be paid by someone. It is unreasonable to expect one central institution in a region or country to bear all these costs for the benefit of their libraries and users in the same area. If a real investment in this technology is to be made on behalf of a group of libraries it would seem reasonable for them to contribute to that extra cost. However, if the host library would have obtained the CD-ROM anyway then the whole problem of costing must be looked at in a different light. There may not be the overhead of the disc, player and printer but there may be other costs such as telecommunication charges, some staff support and other elements. Nevertheless CD-ROM has the potential to simplify accounting procedures but these will continue to depend on administrative procedures being simple and straightforward. Where CD-ROM is

becoming an international resource in a region then the issue of transborder payments will be as complex as for any other interlibrary transaction.

The Future

How will CD-ROM change the future of document supply? There certainly will be some changes as a result of the introduction of this new technology but it is difficult to predict exactly what they will be because this is an area where there is constant change and new developments can overtake any predictions within months. However, given what we know at present there are some changes which can be forseen and which are taking place even now.

Firstly the availability of union catalogues on CD-ROM will make it easier for many libraries to have access to much more extensive bibliographic records and holdings information to enable them to locate materials and request them via document supply systems. More libraries will have much more up to date information than previously when using printed union lists. In the same way more libraries may be able to afford CD-ROM than can afford online searching so that wider access will be quite common, thus increasing the potential demand for interlending and document supply. There are likely to develop more "nodes" which hold a range of good bibliographic tools which will be available for the use of their own patrons and also those of libraries in the country or region. Regional bibliographic centres may well grow in number and comprehensiveness. This will be further enhanced by the development of links between CD-ROM and online databases so that the disc can be searched and the search extended to up to date information on the database when necessary. This extension may be achieved without the searcher even being aware of the change taking place. This makes routine searching much cheaper but has the added benefit of giving access to the most recent information available if needed.

Secondly, the pattern of document supply will change in some ways and for some libraries. CD-ROM will never provide a total storage facility for all documents in all subjects and types of publication. Therefore the storage and publication of full text on CD-ROM will be selective and concentrate on those subject areas where there is high demand and an identifiable core of literature, such as biomedicine and pharmaceuticals. For these topics the pattern may well be to move towards using a series of centres of excellence in the particular topic. This will reflect the present pattern of document supply in the Federal Republic of Germany, for example. Thus totally decentralised document supply may well become centralised on a group of centres. Where there is a centralised system this may well continue if the centre offers document supply from CD-ROM. If alternatives become available then this pattern will change. It is particularly significant that "one-step" shopping will no longer be an argument for centralised systems when documents are made available in this way as the development to telecommunications links to CD-ROMs will make a central bank of these more attractive than making applications in a variety of formats. "One stop" shopping may only apply if it is also "one stop" formats.

With the development of both bibliographic and textual nodes of CD-ROM material the movement away from using other libraries may well bring other benefits. As the technology develops the actual work involved in satisfying requests by the library holding the CD-ROM will be minimal. This will enable it to offer more efficient services for those requests which still require a traditional paper response. Similarly some document supply traffic will move away from other libraries also relieving them of the work involved in supplying materials. This will not apply, of course, in centralised systems where the CD-ROM becomes part of the work of the central collection as this is likely to attract more requests rather than less.

It might be thought that the development of CD-ROM would enable the publishers to bypass document supply services altogether and offer direct online access to their products, linked to document supply services. Certainly this is possible but it is unlikely to be economically viable or desirable for the users. The concept of publisher supply is only attractive if the publisher actually offers a very wide range of products. One stop shopping will still be a significant element in document supply and in the very nature of things publishers will be able to offer a wide variety of products in the way that libraries can do. This, indeed, has been the argument against publishers offering offprint services instead of libraries providing photocopies.

Finally, CD-ROM is capable of improving access, availability and quality as well as improving communications and offering some solutions to pricing and procedural problems. It is not a panacea but it does offer the hope of curing some ills for some patients.

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The CD-KAT story

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For internal use only:

Meeting No: 107

SI: ~~yes~~/no

26-5-90

Svante Hallgren

The CD-KAT story

The present CD-KAT situation

Local CD-ROM catalogues (acronym: CDM for CD-Mediakatalog) are today being installed in Swedish public libraries serving ca 40% the Swedish population. They are replacing sophisticated but unloved microfiche catalogues in libraries participating in the BUMS library automation scheme, run by Bibliotekstjänst AB (The Library Services Ltd).

Today - August 1990 - ca 1000 CD-ROM workstations are installed and the number will double within the next 12 months. This makes the CD-KAT system one of the largest CD-ROM applications in Europe. The participating libraries will receive five updates a year. The size of the bibliographic database (comprising 1,3 million title records and detailed holdings information about ca 18 million copies) makes it necessary to spread the information over three discs thus dividing bibliographic discs have to be pressed yearly. Ca 400 copies of each disc are required. This figure will raise to ca 800 when all workstations are installed.

Each CD-ROM disc contains the catalogues of up to 40 different library systems in 5 to 14 counties. These catalogues can be made available as a regional union catalogue (acronym: CDR). It is very likely that also libraries not participating in the CD-KAT will be interested in using the CDR discs as a partial replacement for the present online service BOK-Sök. The number of CD-ROM copies required will therefore probably raise further.

Also foreign libraries interested in Swedish literature have expressed interest in obtaining the CDR discs. So far they have not been for sale outside the Swedish library system, but a price for such a service will have to be determined in the near future.

The BUMS libraries also receive from Bibliotekstjänst a microfiche file with the addresses of registered borrowers. This file is updated regularly from a central address file administered by the governmental census bureau. This file is now transferred to a separate CD-ROM disc (acronym: CDL) containing 1,9 million addresses. Each library has access only to the addresses of its own registered borrowers. The file contains no information about present or previous titels on loan.

The BUMS infrastructure - a prerequisite for CD-KAT

The CD-ROM production, important as it is, is only a small part of the CD-KAT project.In CD-KAT the libraries expect to find all relevant catalogue information related to their holdings - complete with local classification and shelfmarks, local notes (e.g. this periodical is kept for two years) and the number of copies held at each library site. The libraries expect this since this is

what the old fiche catalogue gave them. So of cource they will also get it in the CD-KAT. But this means that all these facts have to be collected and handled prior to the CD-KAT production. And this it not a one time job - it is a continuos process.

Acquisition and cataloguing in CD-KAT

In order to explain how CD-KAT handles this it is necessary to describe briefly the accquisition and cataloguing procedures of the participating libraries. The two key features are the central cataloguing done by Bibliotekstjänst (acronym: BTJ) and the centralized book binding that BTJ offers. There is no compulsory clause forcing libraries to buy their media from BTJ (a share-holding company owned jointly by the Swedish Library Association and The Association of Local Authorities) but the company has a major share of the market thanks to efficient information about forthcoming titles, high standards of cataloguing, attractive and strong library bindings and reasonable prices. Very important in the CD-KAT context is also the fact that each of the more than two million copies delivered yearly is assigned an individual title/copy barcode number. Similar barcodes in the participating libraries uniqely identifies each

(1) library system
(2) library site
(3) department within the library
(4) collection within a department.

includes the bibliographic description of the title in the local catalogue) the library reads this four tier identification before reading all media barcodes to be assigned to this location. The information is stored in the BUMS terminal and sent in remote batch to BTJ each night. The central database is updated accordingly. Similar routines make it easy to report weedings and changes in location.

The system has been in operation since 1974 and has resulted in the central database BURK which is also available online under the name BOK-Sök.

Local classification in a centralized system

In order to handle foreseeable aberations from the centralized classification and shelfmarking (in Sweden the shelf mark is only an abbreviated classification code), a separate classification matrix for each library system is stored in the central computer. The library then always gets the locally correct classification when the database BURK is searched online, in the fiche catalogues and now also in the CD-ROM catalogue CD-KAT.

Of course the BUMS cataloguing and acquisition system can also handle media from other suppliers, classification abberations other than foreseen in the matrix and local notes and subject words.

Very precise knowledge of the whereabouts of all media as well as bibliographic information and classification preferences of the participation libraries are the prerequisites of the CD-KAT. The system catering for this has been built over a period of 20 years (dating back to 1968). Thus when CD-ROM came into the picture major parts of the information gathering infrastructure was already operational. It is in many ways a brilliant system but suffering from the badwill of the weakest link in the chain - the end product, the microfiche catalogue.

The costing of CD-ROM versus microfiche

That CD-ROM might be an interesting alternative to the abominable fiche catalogues was obvious. But of course the question of costs -the same question that had blocked other fiche alternatives - loomed at the horizon. How could you possibly squeeze the hardware costs of CD-ROM workstations and the editing and production costs of CD-ROM:s into a costing frame that in any way resembled the corresponding fiche costs? After all, the cost of a fiche reader is only a fraction of that of a CD-ROM workstation. And microfiche are cheap according to conventional wisdom. This conventional wisdom says nothing however about the editing costs preceding the actual fiche production. These costs can be substantial, and in our case they certainly were. It was in this area we felt that CD-ROM might be a cost saver.

When making fiche catalogues you have to start from square one every time you want to produce a catalogue. A title found in library X will have to be reedited when it occurs in the catalogue of library Y and again in library Z etc. And this is not all, in every catalogue you have to edit a title at least three times! (Title entry and [at least] one author entry in the alphabetical catalogue, an author entry in the classified catalogue [unless you use more than one classification or the title has several authors - then corresponding author entries have to be made]. On top of it all we have the see: and see also: entries...) This tedious procedure of editing has to be repeated for every catalogue. It takes time and time is money. No wonder then that interesting but costly additions like subject entries were never seriously discussed in the microfiche context.

But with CD-ROM it might be different. What if you could use the same single entry for many libraries and search it from a number of indexes? An interesting but farfetched idea, the sceptics said and pointed out that it would work only if a screening procedure could be employed showing each record in just the form desired by each participating library! furthermore, to edit one catalogue at a time was someting very different from simultaneously merging a large number. Ma, be it could be done and maybe it could not, the sceptics complacently said, it did not really matter unless you knew that the public and the staff could cope with a CD-ROM workstation.

Regardless of the answers to these and a number of related questions it was evident however, that the days of the microfiche catalogues were numbered. Unless the centralized system could produce more user friendly catalogues the libraries would opt for local systems. The holdings reports to the central base would then cease and the quality of the union catalogue/central database BURK would deteriorate at an accelerating speed. Even the CD-ROM sceptics knew that.

1987 Bibliotekstjänst decides to field test a library CD-ROM catalogue

Such was the situation in 1987 when Bibliotekstjänst decided to test a CD-ROM catalogue as an Online Public Access Catalogue in a Swedish Public Library. We knew that we were not the absolute pioneers, the LePac CD-ROM catalogue from Brodart in USA, exhibited at the ALA conference in 1986 was a source of inspiration. It could be no more however since at that time this IBM mainframe based system was not available in Europe. Besides we knew that all the special features of the BTJ system (running on a Bull mainframe) would have meant a very extensive rewrite of the software before a taylor made system like LePac could be used in Sweden. That was something we did not want undertake. But

we also did not want to create our own CD-ROM software. We knew only too well the costs of developing and maintaining dedicated inhouse systems. Therefore BTJ decided that if CD-ROM was to become a BTJ product it should utilize an existing general purpose CD-ROM software package. If there was nothing suitable on the market now it would be better to wait until something suitable came along. This was the first decision of critical importance to the CD-KAT project.

Here it should be noted that CD-ROM software consists of two parts - the authoring software you use when you create the master tape and the search software that enables you to use the CD-ROM disc. Back in 1987 authoring softwares were scarce so we had to concentrate on the search software in the hope that in due time a managable authoring software would be developed. There was never any doubt that if BTJ found CD-ROM to be a viable alternative we would establish an inhouse CD-ROM master tape production.

The evaluation criteria

It did not take long to discover the shortcomings of the CD-ROM softwares of the period. They were mainly conversions of existing online software and their performance on CD-ROM was generally unacceptable, due of course to the fact that a CD-ROM runs at approximately the tenth of the speed of a magnetic hard disk. Obviously the CD-ROM requires a very different systems approach.

An additional source of discontent with the existing search systems was their bias towards command driven searches requireing extensive knowledge of strange commands, hard enough to master for information specialists and obviously impossible to use in a public library OPAC. This was a decisive factor in our decision not to use the system later chosen for the European National Library cooperative CD-ROM scheme.

There was of course the easy way out - don't mess around with complex commands. Make the CD-ROM catalogue as like the old card catalogue as you possibly can - as so many of the local online systems do. Then request that the user knows the exact wording of titles and author's names. We did not want to do it like that - we realized that CD-ROM -at least theoretically, meant an unique possibility to put an advanced search tool at the disposal of the public library user. If we could only find the right user friendly search system, we would enhance the qualities of the BUMS system so it would again be a viable alternative to the local online systems. Not quite as up to date as they are, that is true, but with better search facilities thanks to the dedicated nature of the CD-ROM as a "search only" tool.

That was to ask for a lot! Maybe even more than we realized at the time. But miraculously we found what we were looking for - or at least almost. The German search software Dataware 2000, as it was named at the time (1987), had been used by publisher Saur for Books in Print. It looked nice and easy while at the same time offering advanced boolean searching. It seemed to be just what we wanted but unfortunately it was not for sale, being a special application developed for K. G. Saur. But a module for general use would be forthcoming very soon we were assured.

The alpha test disc

We had at this time established a contact with a service bureau -Archetype in London - with a reputation for expertise in the CD-ROM field. We contracted them to produce our first test disk - a joint project with the University of

Uppsala - and we selected the Huddinge Public Library as our test site. Their catalogue comprised at the time ca 115.000 titles and this makes Huddinge, a Stockholm satellite town, a rather typical middle sized public library. We did not include any copy-related information at this stage.

It took longer than expected to develop this disc. The promised software did not appear until spring 1988 and our alpha disc, as it was named, was not ready until late 1988. Six Philips XT:s with 20 MB hard disk and 8088 processors were used for the test that started at Christmas time 1988 and ran through 1989.

The reception was favourable from the beginning and the expected onslaught of hackers did not emerge. The new catalogue won the public thanks to its forgiving nature. You could type almost anything and get a reasonably useful answer. At least the answer was good enough to encourage the user to give the catalogue another try. In hindsight, knowing the enhancements we have included in the production model of CD-KAT, the success of the alpha disc seems slightly surprising. There was no holdlings information and the catalogue was a bit out of date even when it was introduced, containing no titles acquired after June 1987.

I think it is important to mention this since the microfiche catalgue was produced and exhibited in the library as usual. This catalogue with one total update yearly and 10 cumulated supplements gave the complete catalogue information. The public ceased to use it however and also the staff turned to the fiche catalogue only when absolutely necessary. And this situation remained almost unchanged until the next disc was delivered almost one year later!

The CD-KAT decision

The immediate success of the alpha disc took even BTJ by surprise and led to an complete rescheduling of the planes. We had envisaged an orderly evaluation period and possibly a beta test before deciding whether to implement the CD-ROM technique or not. But since the alpha disc obviously worked, the management decided to make the announcement in spring 1989, that the fiche production was to closeon July 1 1990, and that it would by then be replaced by the CD-ROM catalogue CD-KAT. It cannot be denied that this was a bold move. The alpha disc worked well enough, that is true, but on this disc was the holdings of one library. A production disc should contain up to 40 library systems sharing the same bibliographic records but seeing locally formatted records on their CD-ROM screens. This was something not tested on the alpha disc. It ought to work... Another important detail was the size of the database. The Huddinge catalogue required ca 90 MB. Would there be any significant change in response times when the database size grew to 600 MB? Hopefully not, but nobody knew for certain. These, after all, were the questions to be answered by the beta test!

And how would the CD-ROM work station behave? Discussions with Philips had led to an agreement to use a Philips XT (8088) without hard disk but with a built in CD-ROM drive (CM 201) and one floppy disk unit (1,44MB). The price certainly was attractive and it ought to work. But so far nobody had tried such a combination!

The market response

The libraries reaction was a bit confused, as could be predicted. On one hand

they knew from articles about the Huddinge test, that CD-ROM obviously seemed to work well, but on the other hand they knew little about CD-ROM costs, apart from the general knowledge that new technique always costs more money. And was it not a bit too much, some muttered, to introduce a new technology in the central BUMS system, when the experts had predicted the total takeover of local systems within only a few years?

The cost equilibrium

Very reasonable questions to ask! The key answer however, was that the costs would not rise! *Even when the leasing costs of the hardware were included the libraries would not pay more for CD-KAT than they had earlier paid for the fiche catalogue.* This statement was received with disbelief - how could a more advanced technology be cheaper than the traditional fiche catalogues. Bibliotekstjänst explained the savings derived from simpler editing, and promised that the forthcoming beta test disc would prove superior to anything the libraries had so far used in their catalogue work.

The beta test disc however was slow to appear. Again the software producer had difficulties in delivering the new release of the search software. At the same time Bibliotekstjänst struggled with the old bibliographic mainframe programs. The general idea how to produce a multi-library CD-ROM with single-library performance was straightforward enough. To produce a disc according to these specifications proved considerably more difficult. As the Swedish proverb states: it is easier to say tulip-rose than to make one.

The Beta Disc

The editing problems were solved however and by now the initial very small staff working on the CD-ROM project had grown considerably. In spite of the teething troubles the enthusiasm was great and thanks to the dedicated efforts of the team a beta disk was released in january 1990. This disc was to be tested at several libraries and should also function as demo disc at a country wide introduction tour during the first four month of 1990. The beta disc was also used at training courses for library staff conducted at various places in Sweden.

The beta disc was the first full scale CD-KAT disc containing several library catalogues with extensive holdings information for every library. It was also the first disc to be tested on the Philips XT CD-ROM workstation. All went reasonably well and the beta disc was installed at ca 100 sites.

The Gamma Disc - 1 Kb recordsize

The test resulted in a number of valuable suggestions from the libraries - not least from the reference user group established as soon as the CD-ROM decision was taken - and as a result at third test disc - the gamma disc - was ready shortly after Easter. This disc included also Gothenburg, the largest of the BUMS-libraries, and we were beginning to realize what a full region disc would be like. An unpleasant surprise has been the size of the records - with all local information the average indexed record now is close to 1 Kb (1000 characters). The largest region today comprises ca 620.000 records with the other two regions only a fraction smaller. When the development of CD-KAT started a full CD-ROM disc held 550 MB. We are very pleased that this has now been increased to 670 MB.

The alpha disc was produced by the British service bureau Archetype. It was clear from the outset however that Bibliotekstjänst would establish an inhouse CD-ROM production department. This has been done during 1989 and today BTJ also offers service bureau services also to external customers. The Dataware software chosen by BTJ as the best choice for handling the large and complex CD-KAT is also used for other applications.

The production facilities used for the production of the beta and gamma discs is a CD-Publisher, a dedicated hardware configuration with 1,8 gigabytes of discspace. A Compac 386 was used for editing and indexing in conjunction with the CD-Publisher. The authoring software for the gamma disc is CD-AUTHOR 1.1 from Dataware Inc, USA.

Since the amounts of data have grown considerably the production department has already been enlarged. Another CD-Publisher of the same size of the "old" one is installed and the Compac 386 has been replaced by two considerably faster IBM 486. The 486 handles indexing in half the time and with two CD-Publishers with 486 processors BTJ's production capacity has increased more than three times.

CDM, CDR, CDL -licensing the CD-KAT

What then did the libraries get when the first CD-KAT discs (CD Answer™ 2.01) were released according to plan in June 1990? It depended on their needs and economy. What BTJ promised to do within an unchanged economic framework was to replace the fiche catalogue by the CD-KAT. The fiche catalogue was a local catalogue and the CD-KAT CDM version is exactly that. A workstation with CDM can study the local catalogue (and as a bonus they also have access to the 65.000 titles talking books from the TPB the central library for the sight handicapped). To the workstation is tied a perpetual CPU licence giving the owner the right to acquire further titles from BTJ with Dataware software without further liccense costs.

If the library wants the full contents of the disc an additional BTJ licence gives access to CDR - the region catalogue. By placing the search software on floppy disc (and not on the CD-ROM) BTJ can taylor search and display screens for every individual work station. The OPAC workstation normally holds only the CDM while the workstation for the information desk staff often has both CDM and CDR.

When a new disc is distributed the preceding disc has to be returned to BTJ for destruction. When a new software release is implemented all workstations receive new floppy disks. Floppies with screens for old releases does not work with new releases. At the start ca 1000 workstations were installed. This number will be doubled within the next 12 months. It goes without saying that the production and distribution of individually taylored floppies for these workstations is a sizeable task.

Staff training and end-user training are other very important parts of the CD-KAT introductioin. Parallell with the production of the three test discs manuals, help texts and other staff training material has been produced (and continually revised). A small bulletin with notes on use - and abuse - of the CD-KAT is sent out with irregular intelvals to the libraries.

CD-KAT and Other CD-ROM:s

The CD-KAT workstation will remain one of the most common CD-ROM work stations in Sweden. An interesting question then is how this hardware

works together with other CD-ROM discs. Since there is no hard disk it is obviously not possible to install a number of different search programs in the workstation. Each such program must - as CD-KAT - be installed on a separate floppy together with the appropriate MS-DOS files. On the CD-KAT floppy all MS-DOS (3.3) and CD-Answer files are stored. Most CD-ROM:s can be run from a 1,44 MB floppy but there are some that require a hard disk.

Another restriction is imposed by the monitor. It is a reverse video monochrome VGA monitor i. e. a monitor which shows a negative picture. This setting cannot be changed. In CD-KAT the possible negative effects of this is offset by the screen design giving black text on white background.

It cannot be denied that the XT with only a floppy is a bit slow - especially when searching large databases. BTJ therefore recommends that an AT (286) version with hard disk is used at the information desk. It is also recommended that these workstations are equipped with hayes compatible modems for easy access to external databases as BOKSök which gives the full contents of the database BURK or Article search - another database from BTJ with references to Swedish periodicals.

CD-KAT and local systems

Many Swedish libraries are installing local systems such as the BTJ 2000 - an ORACLE based UNIX system using the new IBM RS 6000 hardware. Can CD-KAT be of any use in this environment? The answer depends on the ties between the local system and the central database BURK. If the library reports its holdings to BURK, and that is a sensible thing to do if the union catalogue is to be retained, then there is nothing to prevent the fruitful coexistence of CD-KAT and the local system. The hardware - the MS-DOS PC can easily emulate a VT 100 terminal and act as such in the UNIX system. And withing the next year we expect to see the Dataware software in a true UNIX environment making a CD-ROM server accessible from all terminals in the UNIX system.

Networking CD-KAT?

Networking CD-KAT in MS-DOS local nets (LAN) is of course possible. The combination of the LANTASTIC net and OptiNet software is one example that seems to work very well. So far BTJ has not directly encouraged networking CD-KAT. The technique requires more technical skill from the system supervisor at the library and the economical savings have been marginal compared to single user work stations. LAN prices are dropping however and there can be no doubt that various kinds of LANs will be used in the public libraries within the next few years. An application that will pioneer this will probably be the simultaneous access to the media catalogues (CDM and CDR) and the borrowers files (CDL). On the CDL disc the addresses of almost two million Swedish library users are collected. Each library has access only to the addreses of it's own registred borrowers.

Other discs that will be convenient to search in combination with the local media catalogue will be the CD-Article Search holding the contents of CD-Asök, one of the most used online databases in Sweden. The development work has started and the target is to have a CD-Asök ready by the end of 1990. And other CDs will follow... We ain't seen nothing yet!

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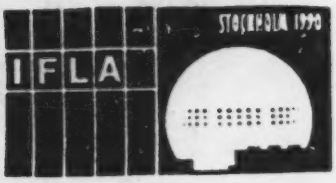

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CD-ROM AND THE REFERENCE LIBRARIAN: THE END OF INNOCENCE

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ABSTRACT

CD-ROM AND THE REFERENCE LIBRARIAN: THE END OF INNOCENCE

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The paper examines the traditional role of the reference librarian and considers the effect of information technology on it. It is argued that CD-ROMs are revolutionising the way a reference service is organised, they change the priorities and even affect the basic skills of the staff. The changes that occur are evident in five major areas: the range of databases in a multi-media environment; the changing function of the reference service; the retraining of staff and users; the changing reference interview and the reappraisal of user education.

CD-ROM AND THE REFERENCE LIBRARIAN: THE END OF INNOCENCE

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Introduction

The development of optical disc technology offers exciting possibilities for professional librarians. No-one can quite see where the future will lead us, but for the reference librarian at least the beginnings of the revolution are already impinging on his or her work. Reference librarians should be concerned with accurate up-to-date information and, without machine-based information systems they are no longer able to offer such a service. Online databases have made this true for some time but it will be increasingly forced home as the CD-ROM market expands and develops.

What is a reference collection?

What most users think of as the reference collection is a peculiar beast having little in common with other collections in a library service.

It will be one of the few parts of an open access collection which restricts its contents for library use; it will be made up of a special type of publication, those organised in a special way for retrieving information quickly; it will be more current than most parts of the library and, to use it, the public will need guidance at a more immediate level.

All this is true as far as it goes, but even before the advent of information technology a wider definition was necessary. As Katz (1) says, "Anything in the library, from periodicals to manuscripts and photographs, is part of the reference collection, as are the holdings of the immediate area or at a national or international level. A reference source is any source, regardless of form or location, which provides the necessary answer or answers."

What is a reference librarian?

A reference librarian is a generalised information specialist. A librarian in an information unit or special library will have an in-depth knowledge of the sources and structure of the literature in a particular subject area. The reference librarian, on the other hand, will have a wide knowledge of sources across many subjects and have specialised skills in answering enquiries at many levels.

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This specialist knowledge cannot really be taught because, as Grogan (2) claims "it is an art, and skill within an art depends on practice, not precept" "..the art of reference work, defined as personal assistance to individual users in pursuit of information, or even more simply, finding information somebody has asked for, can only be learned by experience".

A good reference librarian will be aware of the different forms in which traditional sources are available, specially produced reference works; handbooks, encyclopeadias, dictionaries and directories for example. Many of these have been built up and developed over many decades. In addition, there are the abstracting and indexing journals; the atlases, gazeteers and maps covering the globe; local and national newspapers, and national and subject bibliographies.

Changing technology and the reference collection

The growth of online services during the last twenty years has transformed the concept of the traditional reference collection. These services allow librarians to offer immediate access to a wider range of services than hitherto had been possible. More than ever it means that a collection can no longer be defined by the physical confines of a particular library building. Access to information has become an international interactive process. Abstracting and indexing services were the first bibliographical databases available but a wider range of publications are now on offer. Standard reference collection publications such as Kompass Directories and Key to British Enterprise can be accessed online along with many full-text sources from the ABA Banking Journal to the York-Harrisberg Business Digest.

In addition, new databases have been created which have used information technology to offer other services. For example, Reuter's Textline offers subscribers the possibility of searching the world's press, and Datastream provides the opportunity to download company information and economic data.

It has been true for some time that no good reference service is complete without being able to access online databases. Reference librarians have been failing to give their users a full professional service if they have not taken into account the possibilities that online services offer. That is not to say, of course, that every reference enquiry would need to end in a full online search. It does mean that each person whose query could be best answered by such a search should have the opportunity to undertake one. Alternately a reference librarian should use an online source if a full answer requires it.

To quote Katz (1) again "The computer and the data base are an integral part of the reference service... even in the smallest library it is impossible to ignore present and future potential

for being able to store reference materials in a data bank. Add to this capability various audiovisual media, microfilms, and copying machines, and it is evident that reference sources are much more than printed works".

Reference librarians have been providing a flawed service if they did not at least have the knowledge of what could be offered by non-book services, and much more satisfactorily, have the ability to continue a query through to a successful online search where necessary.

These online services are still very much alive and essential tools in the reference librarian's kit. They are, however, complemented by compact disc technology which has added a further dimension to the reference service and begun a revolution to which at present there seems to be no end. The development of this technology is such that it will affect libraries in general and the traditional reference collection in particular.

CD-ROMs and the reference collection

In addition to augmenting, and changing, the way information is provided, CD-ROMs will change many traditional assumptions about reference libraries. Let us look at the following aspects:

i) the increasing range of available databases and how they will add to the information opportunities for the librarian and reference library user,
ii) the organisation of the reference library and how it will need to be re-examined,
iii) the need for retraining for both librarians and users,
iv) the traditional reference interview and how it will need to take account of the new technology, and
v) the need for a thorough re-appraisal of user education.

The range of CD-ROM databases available

As with online databases, abstracting and indexing journals were some of the first CD-ROM discs. Although some of the major database producers in this area have still not come up with commercial products there are an increasing number of important databases on the market, and many more in prospect.

Traditional reference books are also being loaded so that collections of dictionaries can be found on a single disc, as can the works of Shakespeare and the Bible.

Many libraries have, unfortunately I believe, looked at the wide range of publications available and decided to purchase only those discs which will be of help to the library staff. Others have bought the technology but provided a service available only through an intermediary. Still others have imposed compulsory training sessions on users before allowing them to access infor-

mation themselves. Finally there are library services which have imposed charges on users and restricted access to information because it is on disc.

Such restrictions are becoming increasingly anomalous. The CD-ROM technology of today is very much more advanced than that of only eighteen months ago. Keeping CD-ROM on closed access is not a realistic option if librarians are to have any meaningful role to play in the future.

The important thing here of course is not that CD-ROM versions of traditional works merely duplicate the printed source they augment it, offering added value. The Encyclopaedia Britannica for example will cover a vast amount of knowledge in readable form whereas its CD-ROM equivalent, Compton's Multi-Media Encyclopedia, will provide, as its name suggests, a multi-media approach to the facts on offer. It gives moving pictures and appropriate recorded music as well as on-screen printed information. The Guinness Disc of Records offers the same advantages over its printed original. The use of hypertext increases the learning potential of such new publications because it allows the user to organise the search for information in his or her own way.

It is this ability to offer information in a different way which will mark the progress of CD technology. Replicating the book will not be its main function, it will augment the book, bringing music and pictures together with the written word. In future books will have CD supplements making them multi-media packages. The reference collection will be transformed but there will still be plenty of books and journals on the shelves.

Changes in the organisation of the reference collection

The technological development of reference services has been somewhat less frenetic than some others. Issue services have long been transformed by automation as have most cataloguing departments. Reference libraries, in contrast, have remained relatively untouched. There may have been a photocopier near at hand, but until online searching came along there had been little technological change since the telephone was introduced. Until recently all that has been necessary are a good collection of current reference books, a desk, a telephone and finally an experienced reference librarian.

Once CD-ROM arrives in the reference library a revolution takes place. First at least one workstation needs to be established; a CD-ROM player with a micro and a printer will be required for each. Next the workstation needs to be sited in the most appropriate location and that may mean reorganising the reference area completely.

Some arrangement then needs to be made for checking out and returning the discs to the reference desk. This is, of course,

another departure for the reference section; the business of issuing and returning items has usually been left to other library services. Special arrangements will not only need to be made for the borrowing of the discs but some booking system will have to be organised for the reservation of workstations by users.

The selection process for the discs is another novel feature for the reference librarian. There may be a number of different reasons for choosing to add a title to the collection. Whether it is on disc or in printed form, an item may be purchased because it covers a new area of interest, is a new edition, or satisfies a request. A CD-ROM database may also be bought because it will bring other potential benefits, for example; it could provide added value to a printed source which is already in stock; it may offer a service which is not available in printed form, or it may save space by replacing a printed source which takes up an inordinate amount of shelving in the reference collection.

The benefits that CD-ROM databases bring over conventional online searching in regard to budgetary control are very well known. After the initial outlay for the disc there is no problem of add-on costs, unless you count the costs of printer paper and ink cartridges.

The developments taking place with networking are important for any library which intends to stay at the centre of information provision. Systems are now commercially available and offer the possiblity of multi-user access to CD-ROM databases. There are some problems in terms of licensing for certain databases and this may prove quite expensive, but the ability to offer networked databases between libraries or across campuses makes the future an exciting possibility. It will change the role and work of the reference librarian even more.

Changes in reference library skills

As I quoted at the beginning Denis Grogan (2) says that reference librarianship can only be learned by experience. It is the knowledge gained by use of directories and databases which gradually makes a rounded and competent reference librarian. Those skills which have for years gleened information from Who's who, or explained how to expand a journal abbreviation in Chemical Abstracts will need to be augmented. The good reference librarian must be able to use the CD-ROM databases in his collection. Moreover he will need to know them well enough to be able to rescue a reader who is on the point of losing a search because he or she does not know what to do next.

Not all librarians are well gifted in the installation of computer systems or the loading of software. The more a library invests in this technology the more it becomes obvious that specialised staff is required. So many problems arise which need expert and often immediate attention that systems librarians are

now essential personnel in a modern library.

Some computing skills will also be an advantage to the reference librarian. Each new database comes with its own software and it can be an advantage if the reference librarian has some idea what to do with it. The more computing skills possessed the more advantage he will find it.

Some knowledge of what to do in times of crisis will help. Adding paper when the printer runs out or changing the ink cartridge are not major crises but overcoming them may help prevent a riot amongst library uses. The problem of viruses has affected a number of public access machines and it is a problem that is likely to grow. It is one reason why I would recommend that CD-ROM workstations are close to the enquiry point and can be seen by staff. There are a number of other precautions which can be taken and the reference librarian should be aware of these.

A reference librarian will have managed budgets for his collection in the past. Budgeting for CD-ROMs will be an additional skill and bring novel problems. Because of the pricing policies of periodical publishers it is difficult to cancel a title in printed form when purchasing a CD-ROM version without incurring a financial penalty. Of course there is not only the financial consideration, it is also a problem for other reasons. If, for example, you have a complete run of an important title can you risk cancelling it and depending on the disc alone when no-one has conclusively worked out how long a disc will last?

If the matter is to be taken seriously then a CD-ROM service is best established with new money. Various other methods of raising funds are being tried, including founding user-clubs to finance particular databases, or, in universities, seeking joint financing with academic departments. As a resource manager the reference librarian may have to examine a number of options.

All these additions to the skills of the reference librarian and all the changes that will be imposed upon the reference service subtly change the nature of the job. Is it time then to consider a change of name? The reference librarian is now also a victim of added value and should now perhaps more fashionably be described as an information manager.

Changes in the reference interview

Much has been written about the reference interview and its importance to the reference process; the introduction of a CD-ROM service adds a new dimension. In the first place the librarian needs to find out from the user if he or she is familiar with a particular, or indeed any CD-ROM database. It may be necessary to find out just how familar, and in what mode a particular database should be searched by the user. It may also be important to try to gain information about the extent of the user's computer skills.

The attraction of CD-ROM searching, or at least the curiosity value of them will attract users. It is quite possible for an enquirer to ask for a disc which will yield nothing much of relevance. Once some users see others using what seems to them a magic disc they want to use one despite the fact that it is not a database which will yield them anything at all. Without some fairly close questioning about their real information need they would fail to get the correct source. The reference librarian must however be careful to show that he has the user's interest at heart and is not just spoiling the reader's fun by keeping him or her from what the perceive as an all-powerful information tool.

Changes in user eduation

The problem of user education is a perennial one and it has been especially so in academic libraries. There are three aspects to this training role in regard to CD-ROM: first there is the need to train users on the CD-ROM databases that are available in a particular library; secondly there is the training literature which needs to be offered to help with those databases, and finally there is the broader question of training in the wider context, both in terms of information sources and the various possibilities for accessing that information.

Let us look at the first point. There is no doubt that, despite the claim to user-friendliness made by many database producers, the vast majority of users need initial help. The problem for the reference librarian is to ensure that this is done as cost effectively as possible. The larger the clientele and the more databases one has, the more difficult is the task.

Many smaller libraries, especially those concerned with a specialist subject area such as medicine, organise training sessions for small groups of users before they are allowed to search on CD-ROM. There is at least one university library in the UK which imposes this restriction on all its users even though it has a large clientele.

The restrictions on CD-ROM use become more and more difficult to justify the more the demand builds up. It is impossible to restrict access unless the teaching programme that is organised is available and convenient to everyone in all databases. It is important to organise such a programme if at all possible, but attending seminars cannot be a prerequisite for using an appropriate database. What experience reference librarian would prevent someone from consulting a citation index unless a thorough training session had been undergone first?

Whatever training is offered to users of a large library it seems inevitable that there will always be people who will need one-to-one tuition. To limit this use of the reference librarian's time a handout should be produced in-house for each of the

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databases offered by the library. If cleverly produced these can be very effective in limiting questions once a person has been shown how to load the disc. Although some database producers are generous with the number of user guides they provide, these are often far too complex for the initial user. They should always be on hand however for those users who wish to search more comprehensively.

The wider context for user education covers a number of important points about the way in which information is organised and the inherent dangers in CD-ROM technology for the user.

I have already pointed out the eagerness with which some users grasp onto CD-ROM. As an information source it will be fine for most of them if it comes up with something, even if it is only marginally on their topic. There seems to be a remarkable willingness to accept information that is printed out for users, whatever the source and however lacking in comprehensiveness. Many users seem happy as long as they can put off a manual search, they seem satisfied with any references as long as they are printed out from the CD-ROM database.

Some training is therefore necessary in using information sources. This is particularly essential in higher education, but should be provided at all levels. The creation of databases on CD-ROM is tranforming attitudes to information provision. These databases are easy to use and even fun, searching for references has had all the drudgery removed. This sense of wonder should be preserved but the enthusiasm should be gently pushed to ensure more productive use use of the databases where possible.

There has been a long debate as to whether it is the role of the librarian to lecture in information sources or whether it should be left to the subject specialist.

To quote Ray Lester (3) "... the student should learn about libraries as part and parcel of his chosen subject study ... accepting this it is clear that it is the academic staff who must be primarily responsible for library teaching". He goes on to quote the Chemical Information Review Committee, which proposed: "One member of the teaching staff within each university or polytechnic chemistry department should be responsible for the teaching of research students in information techniques and sources."

There is a new role for the reference librarian in user education. He should undertake to provide a broad overall demonstration in order to link all the relevant aspects of information provision together. Bibliographical searching is now a multimedia skill and it is unlikely that the subject specialist will have the time to keep up with the developments in information technology affecting his or her subject area. The reference librarian's task is to raise awareness in this area, to inform, and keep up-to-date the subject specialist and where necessary his or her students. It is now especially important, in educa-

tion, that students and academic staff become aware of the potential of these new forms of technology and understand how they relate to more traditional sources. The reference librarian has to show what is available, what can be achieved, what are the limitations, and most importantly, how to use them to the best advantage. The academic subject specialist can then follow through with detailed help, expanding on the subject sources he or she feels the students should use.

Librarians are amongst the leaders in understanding and offering CD-ROM technology. Even when it becomes more widely available, advice will be needed by new users as to the best databases to purchase and the most effective way to organise a service. The expertise we possess as information managers should be built upon, for it could help transform the traditional view of our profession. In terms of reputation and professional esteem it could help librarianship come of age.

The transformation of individual librarians with traditional skills to this new role as information manager is not an easy one for many individuals. Some find it very difficult, some never achieve it at all. But once the transformation has been achieved throughout a library service it can bring enormous dividends. It raises the prestige of the service because it encourages use, it raises expectations and increases demand. It transforms an archive into a living resource. It ends innocence and brings maturity.

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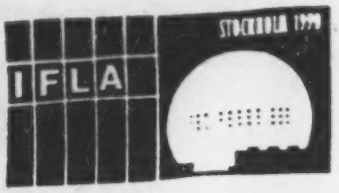

Division: Collections and Services

Section/RT: Interlending and Document Delivery

103-INTL-2-E

Copyright law in the Federal Republic of Germany and the libraries

IR053481

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Copyright law in the Federal Republic of Germany and the libraries

The copyright law which is at present in force in the Federal Republic dates from 1965. It has been amended twice, in 1972 and 1985, and has had several modifications, the most recent being this year.

The copyright law is founded upon the Basic Law of the Federal Republic of Germany: especially relevant are paragraphs 2, 5, 14 and 19, dealing respectively with civil liberties, the right to freedom of expression. laws on property, inheritance and expropriation, and the limitation of fundamental rights. Furthermore, German copyright law meets in entirety the requirements of both great international agreements, the so-called Revised Berne Convention and the Universal Copyright Convention. The German Reich was one of ten states which in 1886 ratified the first of these agreements, which was then known as the 'Berne Convention'. When in 1952, following an initiative by UNESCO, the Universal Copyright Convention came into force with reduced demands, it was also ratified by the Federal Republic. More than 150 countries throughout the world have today ratified both treaties.

I would first like to consider some basic paragraphs of the copyright law, and then deal with those which are particularly relevant to libraries. Copyright protects the author of a work from unauthorized economic exploitation of his individual creative output and from infringement of his intellectual interest in the work. Paragraph 1 names literary, scientific and artistic works as protected material. In the following parargraph details are then given - written texts of every kind, speeches, music, photographs and film. The 1985 amendment has in addition included software programmes at this point. Both independent works and translations and other adaptations, as well as collected works, enjoy the protection of the law (paragraphs 3-4). The owner of copyright alone has the right to exploit his work, whether it be in material or non-material form. This includes the rights of reproduction, distribution and exhibition, as well as of lecturing, performing and broadcasting, and rights of reproduction on canvas and recordings (paragraph 15-21). A section of these rights is already included in the Berne Convention as minimal rights. Statements of particular importance for the librarian are contained in paragraph 27, which is concerned with the hiring and lending of copies. It is here stipulated that appropriate amends shall be made to the owner of the copyright, if the hiring or lending is carried out professionally or by a public institution such as a library. The claim for compensation can only be enforced on trust by an exploitation corporation. At the present time there are nine such corporations in the Federal Republic: their activities are supported by state licence: the Patent Office is responsible for supervision. The exploitation corporations WORT, GEMA and Bild/Kunst have concluded a collective agreement with Bund and Lander for the settlement of copyright claims by payment of a lump sum. A percentage is paid by public libraries on all loans made. In many libraries this includes the lending of computer programmes. The draught 'Guidelines for the legal protection of computer programmes' drawn up by the European Community in 1989 specifically provides for the lending by public libraries of normal purchased software if it is for study purposes.[1] In accordance with a judgment of the Federal Constitutional Court the percentage paid by libraries also covers the lending of records - and by extension of the judgment, of all audio-visual materials.[2]

Basic provisions of the law deal with the inheritance of the ownership of copyright (paragraph 28) and the concession of rights of use to other people

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(paragraph 31), as well as the protection of the intellectual property for a certain period after the death of the author. The Prussian law for the protection of ownership of artistic and scientific works imposed a limitation of 30 years in 1837. In the course of an amendment in 1901 the protection was extended to 50 years, and in 1965 under the current legislation was established at 70 years (paragraph 64). International agreements permit of shorter periods in this area: the Revised Berne Convention 50 years, the Universal Copyright Convention only 25 years. The interval for which copyright remains in force is of relevance in the microfilming of historic library collections. In the Federal Republic it is considered that protection does not extend to authors who died before 1920. In other cases the library must ask the owner of copyright for permission. Certain exceptions are provided for, which I will consider at a later point.

Infringements of copyright can result in prosecution under both civil and criminal law. The holder of the copyright can demand an end to the infringement and damages (paragraph 97), as well as the destruction of all copies produced and distributed in contravention of the right (paragraph 98). Deliberate infringement can be punished with a term of imprisonment of up to 3 years or with a fine (paragraph 106), making copies for profit with a term of imprisonment of up to 5 years or with a fine (paragraph 108). Both aforementioned penalties represent a tightening up of the law, following on changes introduced this year or under the 1985 amendment. That libraries are also liable to prosecution under civil or criminal law is shown in an article which appeared early this year in the German periodical 'Bibliotheksdienst',[3] which was concerned with the treatment of pirated editions in libraries.

The scope of the law relates in the first instance only to German citizens (paragraph 120), but in accordance with the provisions of the Revised Berne Convention and the Universal Copyright Convention, foreign nationals, stateless persons and refugees receive the same protection for works first published in the original or in translation in the Federal Republic (paragraphs 121-123).

Thus far we have primarily discussed the right of the owner of copyright to exploit his intellectual creation. The law of copyright, however, like ~~that relating to~~ property, is subject to social obligations, and thus has certain restraints imposed upon it. Hence the author cannot forbid certain uses of the work, and cannot even require payment for certain kinds of use as stipulated by the law. The interests of the public at large are here being taken into account. In the final instance the Law assures unimpeded access to every kind of information. Amongst the paragraphs which are concerned with the limitation of copyright protection, paragraphs 52-54 are most relevant to library work. These regulate public performance of published works, reproduction for private and personal use, and the obligation to provide compensation for making such copies.

According to paragraph 52 public performance of vocal and musical works is permitted in libraries, if this is not for profit-making purposes, if no entry fee is required and if no participating artist receives payment. The amended copyright law of 1985 does allow for an appropriate reimbursement, however.

One of the fundamental aspects of the amended copyright law is the new regulation on copying. The technical and economic possibilities for copying had changed considerably since the original law came into force, and these changes had to be taken into account. In particular publishers were afraid of an erosion of their rights of reproduction. Paragraph 53, section 1-2, now regulates as follows: It is permitted to make individual copies for private, scholarly use, and also for inclusion in a personal archive, if the reproduction is made from the owner's personal property. Copying of small sections of a work or single contributions from newspapers or periodicals is also permitted for other personal uses, such as professional or commercial applications, with the provison that the work must have been out of print for at least two years. This two year clause is not without difficulty for libraries, as in cases of doubt it necessitates making enquiries with the publisher. Section 4, which was newly inserted in 1985, restricts the amount of copying. The reproduction of music and the copying of entire books and periodicals can now only be permitted with the assent of the owner of the copyright. Once again an exception is made if the reproduction is made from the owner's personal property, and is needed for a private archive and solely personal use, and if the work in question has been out of print for at least two years. These provisions are also clearly valid for the microfilming of protected works. The lending of microforms thus produced is permissible, if the lending of the original would mean a risk. The filmed copy is to be treated like a replacement copy. Express permission must be granted by the owner of copyright before software programmes can be copied. The production of master copies, which is undertaken in libraries with increasing frequency, is also subject to this regulation. Copies can neither be distributed nor used in public performance (paragraph 53, section 5).

For the copies allowed according to paragraph 53 without permission from the copyright owner compensation is compulsory on the basis of the regulations laid down in paragraph 54. The manufacturers and importers of copying machines are required to make a single payment for each machine to the exploitation corporation WORT, which acts as trustee for all authors. This payment is calculated according to the capacity of the machines and varies from DM75 to DM600. In addition to this the operator is required to make a payment if such copying machines are installed in schools, universities, colleges, research institutes, public libraries and copy shops. The payment for every A4 page copied amounts to two pfennigs and for duplication of school books five pfennigs a page. Here, too, claims for compensation can only be asserted through WORT, with which the supporters of libraries have signed general contracts valid in the first instance until the end of 1993. The federal states pay a total of about 2 million marks a year at present. Every three years the Bundestag discusses the development of copyright compensation and the adequacy of the current rate.

Seen as a whole the present German copyright law shows a tendency for the copying of protected literature to be prohibited or requiring permission only in exceptional cases. Perfected methods of duplication are recognised as an important means of obtaining and spreading information. But the author is entitled to appropriate compensation for copies made without his permission. German librarians were not without influence on the new copyright legislation. When in 1976 the government announced its intention to revise the copyright law, publishers and booksellers demanded in several memoranda a considerable restriction of the freedom to copy and a comprehensive system of compulsory compensation. The German Library Association (Deutscher Bibliotheksverband) represented the interests of the users and in several statements came out against demands which were exaggerated from a librarian's point of view. What after years of tough negotiation, finally found its way into the new copyright law is a compromise, but one with which both sides can be basically satisfied.

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[1]ABl. EG Nr. C 91 of 12th April 1989, pp. 4-16. (Gazette of the EEC; German edition)

[2]Decision of the Federal Constitutional Court of 3rd October 1989 - 1 BvR 775/86.

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IFLA GENERAL CONFERENCE STOCKHOLM 1990

Workshop of the Section of Interlending: CD-ROM and Interlibrary Loan

139-INTL(WS)-4-L

CD-ROM PROGRAMME AND PROJECTS SUPPORTED BY THE COMMISSION OF THE EUROPEAN COMMUNITY (CEC)

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CD-ROM PROGRAMME AND PROJECTS SUPPORTED BY THE COMMISSION OF THE EUROPEAN COMMUNITY (CEC)

Abstract

Since the early 1980'es the Commission of the European Communities have investigated and encouraged the use of a new information technology in the member states. They have run a series of workshops and state-of-the-art studios and have in different ways supported projects and development programmes wirh the aim to investigate the potential use of optical digital data medias, the need for standards, and have supported European systems using optical storage techniques, e.g. CD-ROM products. The lecture will give an overview of the findings of some of the most important programmes supported by the EEC, e.g.: The IMPACT programme, the ten DOCDEL projects, the ADONIS project etc. Finally the possibility of supporting new projects in the library world will be mentioned.

The aim of this short lecture is to give you an impression of how the European Commission in different ways has supported the introduction and use of CD-ROM in Europe. It is not possible in a short time to give a covering description of all activities, but I will give you a short overview, and I will mention some of the programmes and activities which I myself find important. In the printed version of my lecture you will find references to documents that will give a more exhaustive description of the activitivies, but if you have any questions, or if there is anything in my lecture you wish to comment on, you will be welcome to ask questions.

The support to CD-ROM programmes and projects is a part of a decision made by the Commission back in the early seventies when they decided to broaden the base of electronic information market away from the relatively specialized offerings towards information product and services, which would be of more direct benefit to trade and industry. The department of the European Commission that is responsible for the community initiatives in this field today, is Directorate General XIII Telecommunications, Information Industries and Innovation.

The community's interest in CD-ROM and other optical medias for storage and distribution of information goes back to 1980, when a series of workshops, studies and conferences were initiated by the Commission. They analized technical economic and organizational aspects of electronic publishing and electronic document delivery, and a result of these investigations was expressed in the Commission's action plan from 1981. As a matter of fact it was the third action plan within the area of developing the information and documentation services in Europe.

The aims of this action plan were to support development of high quality information services in Europe, marketing and user support, application of new technologies and methodologies including optical storage media. Later on in the fourth

action plan from 1984 one of the goals was to support developing electronic publishing services and image banks using CD-ROM, video disks and related technologies. In appendix 1 there is given an overview of the Commission's programme since 1971.

As a very important result of the third action plan the Commission decided to initiate a series of experiments in electronic document delivery and electronic publishing. This was done by announcing a call for proposal promising support from the Commission to about 25% of the total project costs. 10 projects were selected and supported by the Commission within the framework of the DOCDEL programme. All the projects were of cooperative nature and involved collaboration of more than 50 organisations and companies. The 10 projects exploit collectively a range of different technical, economic and organizational issues. Together they covered all stage from production to storage and delivery of documents, and in addition different types of documents and texts. Printed books were included as well as journals, reports, pictures and mathematical symbols. Some of the documents were represented in digital form, either in coded characters or in facsimile storage. Different storage media were included too.

Although there was no direct support to CD-ROM projects in the DOCDEL programme, at least two of the projects, a full-text data base project using optical digital storage system, and a patent data bank combined with a document delivery system gave achievements, which have been important for the development in the CD-ROM area.

As a result of the 4th action plan the Commission issued a call for proposal for the development of value added imformation products and services based on digital optical storage media as CD-ROMs. 9 proposals were selected for funding. In average the projects got 25% in support from the Commission, and the total project costs for the 9 projects were about 10

saving of stock rooms if printed versions of the journals are substituted by CD-ROM disks. As can be seen from Corwitch' article, it is difficult today to give a final evaluation of the cost factors involved in the project, but Corwitch still expect that the ADONIS system will be a competitive document supply method, and this spring it has been decided to establish ADONIS as a fully operational system from 1991, now covering 425 journals of prime interest to the pharmaceutical industry. I am sure that those of you, who are interested in ADONIS, can have a demonstration in the exhibition hall.

The aim of the IMPACT programme is mentioned in appendix 1. Several projects have been supported under the programme, and most of the projects are still running. The very important achievements from the programme have resulted in a decision of launching of IMPACT 2 programme.

Appendix 3 gives an overview of the 11 large scale demonstration projects, now in progress under the Commission's IMPACT programme. Several of the projects involve the use of CD-ROM products, for instance the EUROPAT project. In a trial period CD-ROM products of patent documents will be used in a survey of user needs. If successful, this work will lead into the full scale project to put digitized patent image and related information on sets of CD-ROMs for expert and non-expert users of pattern information. The Commission has recently decided to announce a second IMPACT programme that will run for the period 1991-95, and probably this programme too will support activities within the CD-ROM area.

I will finish this short overview by mentioning an ongoing CD-ROM project supported by CEC.

million dollars. Beside funding the 9 experiments the Commission also supported initiatives from a joint group of publishers and manufacturers to investigate and support development of standard for CD-ROMs. In appendix 2 there is given an overview of those CD-ROM projects, funded by the CEC. The projects are of more or less interest for the library sector. But the most important and I am sure the best known is the ADONIS project in which British Library has been and still is involved.

The 9 CD-ROM projects give a reasonable representative of the spread of CD-ROM products currently available on the market. Different categories of products are envisaged: Merging bibliographic files, investigation combination of graphics and text information, full-text in coded character form etc. Most of the 9 projects have now stopped. Some of them have continued as a commercial product, but up to now there has not been a total evaluation of all 9 projects. But some of the projects, for instance the ADONIS project has been well documentated in the library press.

During the IFLA conference in Paris last year deputy director Ulrik Corwitch gave a lecture about ADONIS and the latest development in the project. This lecture has later been published in IFLA Journal, vol. 16, No. 2, 1990. So I shall today only mention the basic ideas in the project and the situation today.

The ADONIS project is a trial document delivery service that supplies all articles from 224 biomedical journals. The journals are currently delivered at CD-ROM disks using a scanning technique. The ADONIS system is both a reference system to the articles and a document delivery system. The publisher's interest in the project has been to control the photocopying activities in the library. When the ADONIS system will be fully operational, the publishers can have a license fee on every article printed out, and from the librarian's point of view a well functional full-text system hopefully can give staff savings in the photocopying process and

Also as a project under the IMPACT programme a work is on the way on a pilot demonstration project in which 7 national libraries are collaborating to use CD-ROM as a vehicle to improve the interchange of bibliographic records. The consortium comprise of the national libraries in 7 countries. It is hoped that the CD-ROM application can help promote better and easier access by more users to national bibliographies and make economies in library cataloguing through better and more reuse of cataloguing source records. A part of the main projects are 9 subprojects, each involving different partnerships between consortium libraries. The 9 subprojects each involving one or more of the partners in the main project - are coordinated by the British Library. Appendix 4 gives an overview over the 9 subprojects.

Of special interest for the library sector is of course CEC's action plan for libraries. Through more than two years the European library sector has looked forward to the possibility of strengthening the research and development in the use of new information technology and the international library cooperation. It was hoped that the commission would reserve up to 95 million $ to support the action line for libraries, but as it looks now, the library programme will be a part of a 5 years specific research and technological development programme on telematic systems in the area of general interest, and only between 25 and 30 million $ will be reserved to the action line for libraries. But still it's the idea that the programme will have to help develop modern library services all over the community by promoting faster but orderly and cost effective penetration of new technologies into libraries. It can be expected, but also under this programme there will be given support to CD-ROM projects, and in this way the programme hopefully will give new development in the use of CD-ROM in libraries.

As mentioned in the start of the lecture only a few of the actions, the Commission had undertaken, are mentioned. I have highlighted the latest and ongoing projects, and I do hope that this short lecture has given you an impression of the important role which the Commission has played in development of both market and products for new information technology as CD-ROM products. For those who are interested in more information you can find detailed descriptions in the litterature in the reference list, but if there is any question you want to ask me now, please do.

Thank you for your attention.

Niels Mark

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Appendix 1:

The role and aims of the European Community

The overall aim of the European Commission is to broaden the base of the electronic information market, away from the relatively specialized offerings of today, towards information products and services, which are of more direct benefit to trade and industry.

The Commission's programmes that have contributed towards this aim so far can be summarized as follows.

1971 Resolution by European Council of Ministers, to the effect that it is important for economic, scientific and technical progress that scientific, technical, economic and social documentation and data be made available, by the most up-to-date methods, as rapidly and as economically as possible (Official Journal C 122, 10.12.71).

1975 First Community Action plan for the creation of a European online information network (Euronet) (Official Journal L 100, 21.4.75).

1978 Second Action Plan, for the completion of Euronet (which was opened in 1980) (Official Journal L 311, 4.11.1978).

1981 Third Action Plan: transformation of Euronet to a public network: Development of high-quality information services in Europe; marketing and user support; application of new technologies and methodologies, including optical storage media (Official Journal No. L.220.6.8.81).

1984 Fourth Action Plan concentrating on the one hand on the development of information systems in three "vertical" subject areas: materials, biotechnology and patents and, on the other hand, on three 'horizontal' priority areas:

- improving information towards industry,

- reducing regional discrepancies in the European information market,

- developing electronic publishing services and image banks, using CD-ROM, videodisc and related technologies (Official Journal L 314 of 4.12.84).

1987 IMPACT 1 (Plan of action for "European Information Services Market Programme".

The total budget to the programme: ca. 36 Mio. $.

The programme has 6 action lines:

1. European Information Market Observatory (IMO)
2. Overcoming technical, administrative and legal barriers
3. Improvement of the synergy between the public and private sector
4. Launching of pilot (demonstration project)
5. Promotion of the use of European information services
6. Action in favour of libraries

1989 The Commission proposal "Action plan for libraries" P.t. it looks as if the program will be a part of a research and technological development programme, and about 30 million $ will be reserved for supporting projects under the action line for libraries.

Appendix 2:

CD-ROM projects funded by the CEC as a part of the 4th action plan

	Mode of storage		
	Scanned	*coded character*	*Vector*
Full text of standards	x	x	x
Updates of 3 bibliographic databases in biomedicine		x	
European company directory		x	
Chemistry monographs		x	x
Biotechnology periodicals	x	x	
Full-text of scientific journals (ADONIS)	x	x	
Abstracts in civil engineering		x	
General interest encyclopedia		x	
Multilingual lexicography for office automation market		x	

From "The European Commission role in developing a European market for CD-ROM", chapter 7 in "CD-ROM Fundamentals to Applications", ed. by Charles Oppenheim.

Appendix 3:

Most important projects supported under IMPACT 1.

EUROPAT (a trial CD-ROM of patent documentation)

Markush-DARC (generic chemical patent information system)

"500 Years After" (series of optical discs (CD-type) covering a wide range of information on the discovery of the New World).

Multimedia Mediterranean Atlas (CD-ROM containing both general geographical information on the Mediterranean area and specialized detail in the subject of agriculture and commerce.

TEDOC (CD-ROM to replace traditional paper technical documentation in automated repair shops and dealers).

CARTE INFO (development of central multimedia information access points to an online catalogue of relevant information and centralized means of payment to small companies).

MITI (development of an advanced multilingual intelligent interface to enable users to have access to different databases).

DISNET (provide an intelligent interface to electronic information).

ATIS (neutral information system covering a wide sepctrum of tourist information needs).

ULYSSES (creating a model for a European tourism information system. In collaboration with the ATIS-project.

ITDNS (Integrated Tour Operating Digital Network Service. Replacing existing tour operators paper catalogues with electronic catalogues).

A more detailed description can be found in the journal "Information Market" published by CEC, Directorate General XIII, E.g. Nr. 61, 1990.

Appendix 4:

Subprojects to the IMPACT: CD-ROM Libraries project.

Definition of requirements for a retrieval interface for bibliographic data on CD-ROM. These basic rules should be independent of retrieval software.

Tools for MARC conversion. The project investigates two approaches to providing conversion from the MARC format of the host CD-ROM to that required by the user.

Definition of a basic European character set. The project will examine the problems of the extended character sets required in a European context, looking at both technical aspects and at standards.

Multi-lingual interface. Storing, loading and accessing multilingual user interfaces in DOS environment and harmonizing terminology and translations will both be dealt with.

Online links with CD-ROM. The objective is to create transparent links between disc and online hosts services.

Linking CD-ROM to local library systems. This subproject involves commercial library system suppliers and examines downloading and transfer of data to their systems.

Menu interface for multiple CD-ROM. This is concerned with the interface with DOS and compatibility between national bibliographic products in order to aid the ease of movement between databases.

Production of pilot CD-ROM. Here, consortium libraries which have not yet a CD-ROM will produce a pilot disc; a further phase will examine specialist discs and test in-house production methods.

Distribution mechanisms/marketing agreements. This will look at regulatory issues concerning the international distribution of bibliographic data on disc.

All projects are coordinated by the British Library.

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Workshop of the Section of Interlending: CD-ROM and Interlibrary Loan.

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Introducing CD-ROM in a University Library

— problems and experiences

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Abstract

In the past 2-3 years at The State and University Library the movement in CD-ROM use has been from nice-to-have to need-to-have. In 1988 the purchase of CD-ROM in general was motivated with curiosity and enthusiasm to this new electronic media - compared to online searching and printed products. Introducing Medline in 1989 in the reference area attracted new users, and resulted in increased figures in the use of the library's medical periodicals and in interlending.

Before setting up a workstation with CD-ROM's in the reference area the library have to consider how to solve certain issues: the exact placement of the workstation; education of the staff - and the users; the marketing of this new service; written instructions in the native language.

Choosing the first CD-ROM product is easy, it gets more complicated when you have to respond to its popularity amongst the users and purchase more CD-ROM's. More CD-ROM's does that implies more products, more equipment or even a necessity for networking ?

The paper deals with the decisions and experiences we undertook in introducing Medline to our users and their respond to this new media - a user survey is still running.

Some background

The State and University Library in Aarhus is a university library which primarily serve users from Aarhus University. It is situated on the university campus. It deals with all the subjects that are taught at the university. Although there are a lot of local departmental libraries, we carry all titles in our catalogue.

The library has a special responsibility concerning lending and acquisition towards all the public libraries in Denmark. The interlending system goes from a local public library to its county's central public library and from there to us, where our interlending department eventually may search the requested literature abroad.

Just to give an impression of the size. Around 230 people are employed at the library, half of them librarians or research librarians. The book collection amounts about 65.000 running metre. The University has an enrollment of about 15.000 students and 2500 full time teachers and research staff. But

there are other institutions of higher education in the Aarhus area, so we are serving a much bigger number of people.

The library's reference area is divided into three thematical areas with relevant reference tools - one for the humanities and theology, which include our reading room, one for the social sciences and one for sciences and medicine. These areas are not separate departments, they are just divided to help our users. The reference librarians come from all the library's departments - nobody is a reference librarian full time - but they are all connected to just one subject area, with which they can get a good working knowledge.

Nice to have

Excitement came first when we heard about CD-ROM. Some had wildly exaggerated notions of the possibilities. Entire libraries would fit on a small number of disks. All our problems with shelve space would be solved and our users could get the same search facilities as with online-searching. But contrary to online this new media was special interesting in that it did away with the need for costly communication channels. It was more or less a closed system and the price was known and independent of search time, more or less! Some of us thought it would be nice to have.

In 1988 we conducted a user survey - a survey of the library in general. The survey focused on the library services: were the services provided found adequate or in case not what could be done to help it. The political mood in Denmark in public institutions was then, and still is, "do something to show that we have saved all the money on outdated activities that we possibly can, start new initiatives to create the impression, that we are doing more for the customers ". In this picture CD-ROM suited quite well.

To start up a CD-ROM system, you can always start slowly by buying the cheapest products. That is the CD-ROM, a PC, a CD-ROM drive and a printer. In 1988 we bought Grolier's Electronic Encyclopedia, which was the most inexpensive on the market. But then there were not that many titles available. We also got some different demo-products on trial. The PC we had, but we had to buy a CD-ROM drive which we did.

Then we played with it. I tried to persuade all the reference librarians to try it out. Not everyone did.

Some were enthusiastic about it, but some people in the library were very critical, mostly based on a general resistance or malaise about new technology, but also on the fact that the real products were not cheap at all. Then there was the really hard question: Would there be enough users to make it worthwhile. The CD-ROM system was meant to be used free of charge for our users. While we took - and still do - a small fee for online-searching through an intermediary.

At last it was decided to make the year 1989 a trial period for CD-ROM: We had bought the system. Now we wanted to give it a try, presenting it to the staff and the users. We wanted answers to a lot of questions:

Could the reference librarians handle this new obligation?
Would they invest time and interest in it?
Would they get the time back, when users started using the system?
How would the users respond to the new possibilities?
Would they be able to use it more or less on their own?
Would it be a fad?
Would we see new users?

Showing off to staff and users

To get our library users involved in CD-ROM Grolier's Electronic Encyclopedia wasn't the real thing. We had to present a product they needed. That is why we chose Medline. We knew that the medical staff from the nearby hospital, used for research, and the medical students from the university had to use a lot of time writing papers. We already knew some of them were using Medline online, helped by our medical librarian and others using Index Medicus.

We therefore decided to buy SilverPlatter's version of Medline. We had not tried Dialog's version, only SilverPlatter's and the one from Cambridge Abstracts. But I can strongly recommend trying different products - real or demos - to get acquainted with the different userinterfaces.

For myself I can say that I do not find any of the products I have tried the best - there are always compromises in the products. Standardization concerning CD-ROM has come far, but luckily there still isn't any standardization concerning userinterfaces. I mean standardization on such a low level is not to be preferred. There is still room for development by

software-developers. And the problem is not all that big at the moment. Only librarians have to know a lot of different interfaces. The specialized user usually only comes into contact with a few. And the development is of course in the direction of more user-friendly interfaces. One of them may eventually because of popularity become the standardized userinterface.

After deciding about which products to buy we had to consider where to place the workstation. We started with one workstation with 4 built-in drives. We also had to consider how we could educate the staff and hopefully some users. But to get users they had to know about the new system. How were we to spread the news?

The workstation had to be placed in the part of the reference room which dealt with sciences and medicine, in connection with Index Medicus, and not to far away from the reference disk. To do that we had to remove some shelves and to get a new and bigger table than elsewhere in the reference area. But we succeeded and from february 1989 we were in the CD-ROM business.

We never got to some form of systematic advertising. The news of this new facility spread almost by itself. It seems that there had been a latent need for this kind of service. In january 1989 we joined an exhibition at the School of Business in Aarhus as a part of general campaign to make the library's facilities better known. The new CD-ROM and other library services were on display. That was the advertising we did.

Concerning education we decided on learning by doing. First the staff: After a 2 hours instruction we let them try it out for themselves. This by the way was done before the CD-ROM equipment was placed in the reference room.

The users are taught one by one as they come the first time. It is easier to teach the facilities of electronic searching when you have the person with the exact needs sitting next to you.

We have also tried to teach a bigger group of people in connection with a postgraduate course they attended. But they tend to forget most of it, when they eventually get their own hands on the keyboard. So the teaching of using CD-ROM is now a job for the reference librarian who is on duty.

Beside education of users we also had - and still has - a lot of thought about producing an instruction in danish to Medline. But if the users can read the data they get from searching, which is english, they probably also can read the quick reference card or the help screens.

Experience has shown that there is more need for information concerning the structure and content of a database consisting of references and abstracts. Often the users does not have the faintest idea of what kind of vocabulary they are diving into.

"I don't have to kill more laboratory animals..."

The workstation was placed in the reference room in february 1989 and from april we had to set up a reservation form. Each user can make a reservation for a time slot of up to 2 hours. Except for the 2-3 summer month we are fully booked 1 or 2 weeks ahead.

We soon found out that it was not just the already wellknown users that we saw. On the contrary the CD-ROM service attracted completely new people we had not seen in the library before. And most of them seemed very pleased with this new service. First and foremost because they could do the search themselves and secondly because it was fast.

Of course we encountered some technical problems, one of the 4 CD-ROM drives was not always playing along. But compared to using Index Medicus everyone endured the extra wait. We got comments like, " Super system - get some more", "How long did you have this - why wasn't I told", "It's even easier than using Macintosh". Last but not least we got a totally unexpected bonus: "With all these references that I didn't know of until now, I don't have to kill more laboratory animals!"

Need to have

Late 1989 there was no doubt that CD-ROM/Medline had become popular among our users. That certainly resulted in a small amount of envy from people from other subject areas. The question was how to handle the popularity. There was not enough capacity for the demand we had generated. There was no longer any discussion concerning the need. Now we suddenly needed to have more.

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It is no problem to buy the first CD-ROM product, the trouble starts when you find out you have to buy more. More - does that mean more titles, backfiles, more computer equipment or even networking?

After discussions we ended up with a first step solution consisting of 3 CD-ROM stations - one in each part of the reference area and no networking, because of the copyright problems and the dozens of technical problems associated with network installations. Though networking CD-ROM in connection with our local online-catalogue is still considered at some point in the future.

We also tried out some different CD-ROM products in the humanities and the social sciences. The popularity of a CD-ROM title has only little to do with the userinterface. It is of more importance whether the material is useful. That means does the references suit the users of the library and does the library keep the journals that are abstracted. Most users does not have to use more CD-ROM titles (though they do like to play with them) and learn different userinterfaces, if they know that for instance Social Science Citation Index meets the needs they got. The table shows which CD-ROM titles we got installed on the 3 workstations in february 1990.

Humanities
- MLA International Bibliography
- Oxford English Dictionary
- Serial Sources (EBSCO)
- Universität Bielefeld (a university catalogue)

Social Sciences
- Social Science Citation Index
- ABI/Inform (on trial)

Sciences and Medicine
- Excerpta Medica
- Grolier's Electronic Encyclopedia
- Medline
- TERMDOK

After deciding on the new titles we again had to set up education sessions for the staff. It took a little longer this time, because more people were involved and some of them were a bit anxious, that they were not able to remember all the steps needed for a search on each CD-ROM. I always say, that because a CD-ROM is made for the enduser, the best a librarian can do, is spending time on learning about the datastructures and about the subjects each CD-ROM title covers, instead of the userinterface. That is, know more about content than about form. All along we hoped that CD-ROM was recognized to be a common reference tool like any printed bibliography.

All the current activity means increasing use of the library's journals and this of course poses new demands on the interlending system.

There is no question that each CD-ROM title in use tend to make a bias towards a more extensive use of the journals this particular database is covering. This is not different from online-services, but as CD-ROM is meant to be for the end-user and hence will get more popular, the problem will get bigger, and from an european point of view this means an american bias. Which presumably will show up in the papers being written based on the found material. But that is another question.

Electronic searching seems very attractive. Nowadays it is even difficult to get the younger library users to use any of the printed reference tools. They are so used to keyboard technology and believe that from a screen come the best of things. Beside time is a scarce commodity, so they do not bother about timely searches in printed forms. They tend to be electrified by the easiness of getting hundreds of references. They thrust their own searches more instead of letting a librarian do it, even though we can see they do irrational searches. But they want it all.

What the users say...

To help us decide whether to expand the CD-ROM services or not, we planned a user survey on Medline/CD-ROM. From april 1990 we handed out a questionnaire to everyone, who had made a reservation.

We do not have that many individual users - and some of them did not want to participate - though most of them are heavy users. They use the system 2-5 times then we don't see them for months - suddenly they appear

again for their 2-5 uses. On that account we still have the user survey running to get a sample big enough for evaluation.

There are some conclusions to make from the survey so far. The users know the essentially data is there and that they themselves can handle it. Even getting it downloaded on a diskette and bring it home.

First of all we have received only positive answers concerning the CD-ROM services, the negative replies only concerned technical problems. To the question whether they find the system very difficult ... very easy to use, none have answered difficult or very difficult. On the other hand only very few of them have answered that they use the thesaurus function, so they do not perform any advanced searching.

Apart from questions like, if they found the system easy to use, how long they use it a time, the more interesting questions are for instance if they will switch to Medline/CD-ROM from other reference tools. About 64% said they would give up Medline/online-searching and about 63% (not entirely the same people) said they would use CD-ROM instead of Index Medicus. So Medline/CD-ROM is certainly chosen instead of both the online and the printed versions, though they are not completely replaced. Another interesting question to us was, what kind of help they were using, and did they find the help-tools adequate. 2/3 of them used the reference librarian to instruct and in case of bigger problems - for smaller problems they used the online-help (function key F1) or the quick reference card. No one asked for an instruction in danish though some asked for a little guide they could bring home. Later we have even asked verbally about this question, but they seem to be satisfied with the instructions from the reference librarian. We asked them to print out their search profile and return it with the questionnaire. From this we can see that they do get answers to their searches of course, but many of them do not realize the facilities they really could use systematically, like the index-function or the thesaurus.

To the question whether they use more literature hence borrow more journals from the library than before, about half of them answered yes, about 25% said they did not know. Because of the abstract that follows most references, I had thought, they would not need the original articles, only if they really had to use the results. Two of the users I spoke with about this question said, they weren't used to this kind of output yet, but in the long run they would expect a development in the direction of fewer loans on this account. Up to now it has not worked like that. We do have more loans on our own journals and we do have more requests for loan on medical journals

outside the library - that is in the interlibrary loan system. The conclusion one can derive from that is, I think, that CD-ROM with only bibliographical contents will mean more requests on loan from the users, and hence mean more work for the interlending departments. Full-text CD-ROM does not have this implication but can give the library other administrative decisions to make.

Questions for the future

We are only at the beginning at The State and University Library, certainly compared to US-libraries who have much bigger CD-ROM collections. We have to find our place with this new media. Because the question is, how long it takes before the users - or their institutions buy the equipment themselves. So I think, as a university library, we will not in the future buy specialized CD-ROM's but leave that to the specialized institutions. For now we can see, that we have acted as a promoter for Medline/CD-ROM in the Aarhus area.

Now we can turn our effort to other areas than medicine. We have a huge user group of students in business and economics. And we now consider purchase of the full-text CD-ROM: Business Periodicals Ondisc, which contains complete articles form a part of the journals indexed in ABI/Inform. This would mean a relief on our external loans, but on the other hand it will demand some organizational changes. This question we have to answer before purchasing.

There is no doubt, that we in the future in the CD-ROM world will see new full-text applications and completely new products with multimedia functions. And the userinterfaces will be more the HyperCard or Hypertext-way with interactive facilities. We see them allready, with the Comptons Multimedia Encyclopedia as a beginning. In connection with computer and optical disc technology the 90's surely will be the age of the enduser. And to libraries, who are concerned about spacing, optical disc technology is a blessing.

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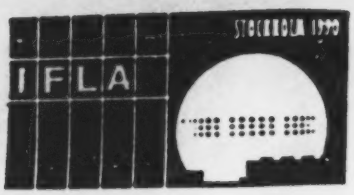

Workshop of the Section of Interlending: CD-ROM and Interlibrary Loan.

141-INTL(WS)-E

STATE OF THE ART; TECHNOLOGY AND PRODUCTS

APPLICATION AREAS FOR CD-ROM

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SYNOPSIS

The optical technology family consists of about 100 different members, but it is just a few of them which are really well known and in commercial use.
The main groups of the family are the analogs, the hybrides and the digitals.
In this jungle of different media, it can be a problem to make the right selection for each purpose. A short description of the main members will be given.

One of the most famous members of the optical family is CD-ROM which belongs to the reflective digital group.
The main users of CD-ROM are the libraries, because the first productions of CD-ROMs were library catalogs and online databases.

At our library we have been working with CD-ROM technology for almost 3 years. We have tested CD-ROMs from about 15 different manufacturers on different equipment. Two single user units are placed in the readingroom near the circulation desk for common use both for the public and library staff.

Topics like application areas, expences, expectations and experiences, single user station/jukebox/network, CD-ROM/manual retrieval and CD-ROM/online retrieval, different user interfaces and our struggles with software, hardware, standards and compatibility and future possibilities are presented.

INTRODUCTION

Magnetic storage has since the computer technology entered our working environment been the dominating method in storing data, but this medium has in fact the later years got competition from new storing technologies as optical storage devices due to these medias excellent durability and enormous storing capacity.

A PC can handle electronicly stored data. This has given publishers and information intermediaries possibilities to distribute their products by way of electronics.

Electronic publishing is a fast growing field used for databases, newspapers, journals, books, maps, spot market analysis etc.
Many libraries are suffering by to little space to store their collections, and are therefore looking for new storing devices. Magnetic storage has limitations such as storing capacity and lifetime. One is reccommended to take annual backups, which do not make life easier to live in an library environment.

Optical storage is a term that describes a method where the information is stored in an optical way.
Optical storage makes it possible to store text, pictures, sound and data at relative low costs, and with fast access to the information.
The medium is small and light, and gives the user access to enormous quantities of information.
The technology is mainly based on the reflective principle where light is the transport medium.

Magnetic Storage is a technique which was developed in the 1950s and came fast into widespread use for storing of sound. Later when the computer technology was developed the same principle was used to store information. The information is stored as a magnetic pattern on a moving surface. A time-varying electric current passes through a magnetic core and produces a corresponding time-varying magnetic field.

ANALOG AND DIGITAL OPTICAL STORAGE

Not everyone is familiar with the terms analog and digital, so an explanation must be given.
Analog and Digital refers to the type of signals used.

Analog refers to a wave-like and time-varying signal used on for exampel gramaphone records and tape casettes. As we know a magnetized moving surface can produce a corresponding electric current. That is what is happening when a music tape passes through a magnetic core in a tape recorder. The time-varying wave-like electric signal is amplified and produces sound. On a gramaphone record the sound is stored in a track of the same shape as the sound curve. We say that the track is an analog representation of the sound because it varies in accordance with the sound wave. An analog signal is more efficient for storing pictures, films and grahichs in their original form than digital storage. Therefore the first optical disks were produced for analog storing of films/movies.
One of the disadvantages with analog stored information is that the data cannot be handled by a computer before it is converted into digital form.

The term Digital means storing information as numbers. The computer cannot directly read letters, sound and graphic but the numbers ONE and ZERO, so all the information firstly has to be encoded before the computer can use it. This means for alphanumeric symbols, graphic or sound that the information

has to be encoded into numerical series of 7 or 8 1s and OFFs or 0s and ONs.
One of the main advantages of digital storing is that the encoded data does not suffer from the degradation that can affect analog storage. As for analog storage the digital signal is not merely an approximation of the source, but an exact bit for bit reproduction.
A digital signal is efficient for computer use because it can be used in its original form, but is less efficient for pictures or graphics bacause this information has to be digitized into grids of dots, called bit-mapped images, which simulate the graphics.

Therefor analog storage is suitable for film, movies, pictures etc, and digital storage is suitable for storing text or data.

HISTORY

14 years ago the dutch company Philips demonstrated its first videodisk, VLP, Video Long Play and in 1981 Philips put the disk on the market under the more wellknown name LaserVision. Since then the development in this area has moved very fast foreward.
At the moment there are about 100 different members of the optical storage family. Most of them are unknown and have appeared on the market the last 2 - 3 years, and some of them are still in the lab.
Only a few of all the different optical storing devices today are in real commercial use.

The optical family can be divided into two main groups, the reflective and the transmissive group. Because the most famous members of the family are in the reflective group, I will deal with that group.

THE TECHNOLOGY

There is some differences between the different disks, but they have some common characteristics. The disk which is mainly produced from plastic is 1 - 2 mm thick and consists of different layers. The innermost layer has a concentric track of different length depending on disktype. This track consists of microscopical pits with different size and distance.
On analog disks the size and distance between the pits depend on the information to be stored. The reality is that the information stored on an analog disk is stored in a digital manner, but the reflected laser beam acting as the information carrier is after passing through the photo decoder, decoded to an analog electrical signal.
Typical for the analog signal is that it is a time-varying signal.

Digital storage of information on the archival disks (>20 cm diameter) may be represented as holes and "nonholes". Holes are 0s or OFFs, and "nonholes" 1s or ONs. The size of the holes are exact and the distance between the holes and

"nonholes" are the same all over the disk. The reflected laser beam represents a continous stream of ONs and OFFs which after the photo decoder is representing an electrical signal which then is decoded into ONs and OFFs by a high technical and complicated process. Since the computer works with digital signals (ONs and OFFs), we do not need any mechanism for converting the signals from digital to analog.

The next layer is an extremely thin layer of polished aluminium which follows the pits of the innermost layer and acts as the reflective part of the disk. The outermost layer is a protective plastic coating (polycarbonate).

An intensive and accurate laser beam in the optical reader hits the aluminium foil of the disk and is reflected back to a photo cell where the signals are converted to electrical signals.
Because of the different size and distance of the pits, the reflected laser beam will differ in intensity and wavelength from time to time and the photocell will recieve different signals.
Fig. 1 shows the cross-section of a compact disk.

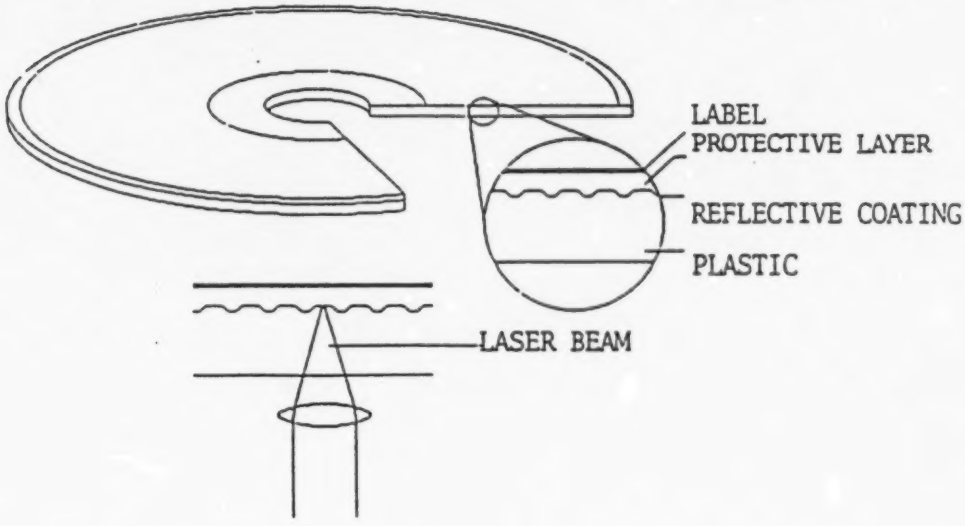

Fig. 1 Compact Disk Cross-Section

THE REFLECTIVE OPTICAL FAMILY

The reflective optical family consists of tree main groups; the analog, the hybride and the digital groups and each group contains many members.

The analogs

LV : (LaserVision)
RID : (Recordable Interactive Disk)

The Hybrides

LV-ROM : (LaserVision - Read Only Memory)
CD-IV : (Compact Disk - Interactive Video)
CD-V : (Compact Disk - Video)

The Digitals

CD-DA : (Compact Disk - Digital Audio)
CD-ROM : (Compact Disk - Read Only Memory)
CD-ROM XA : (CD-ROM Extended Architecture)
WORM : (Write Once Read Many)
DRAW : (Direct Read After Write)
DVI : (Digital Video Interactive)
CDI : (Compact Disk Interactive)
ERASABLES

THE ANALOG DISKS

LaserVision

The videodisk or the more wellknown name LaseVision was introduced on the market in 1981 by Philips and succeded the VLP - Video Long Playing disk.
This disk is quite suitable for storing pictures, movies (video) and sound at high quality. The disk with a diameter of 30 cm contains 54 000 tracks on each side for storing pictures and two soundtracks for stereo sound or possibilities for bilingual sound.

RID - Recordable Interactive Disk

RID is the acronym for Recordable Interactive Disk and both the CAV and CLV disks appeared on the market in 1987. The CLV disk can hold 2x60 minutes video with stereo sound and the CAV disk 2x54 000 single pictures or 2x30 minutes video with stereo sound. Both disks are for local recording of video and the CLV disk also for local recording of still pictures. They are useabel for local recording in connection with marketing, sale and education.

SOME COMMENTS

The videodisks were developed for storing and playing of video material as movies and audiovisual information for education, entertainment, marketing and sale. The disks can also hold digital data. The digital information is then encoded on a videosignal and stored on the disk in the same manner as an analog signal, but there is some difficulties since the pits are very small (1 micrometer) and sensitive for dust particles and irregularities on the disk.

Since the pictures on a videodisk is stored as analog signals they can not be treated or manipulated by a computer without special equipment. To day we can install an interfacecard in our PC (eg. MIC 4000) which makes it possible to convert analog stored pictures on the videodisk into digital data for PC use. But the storage requirements for an analog picture in good TV quality is from 1/2 - 1 Mb in digitalized form. That means for a 600 Mb compactdisk only 30-35 seconds of video (PAL).

THE HYBRIDES

This medium is based on analog storing of pictures or video while the sound or text are digitalized. Therefor the name hybride, it is a bastard since it has the possibilities for both analog and digital storing.

CD-V - Compact Disk - Video

The disk uses analog video and digital sound. CD-V is based on the standard described in **THE BLUE BOOK** (Philips) and was introduced into the market in 1988. The standard defines three different disk sizes, 12 cm (CD-V-S Compact Disk Video Single), 20 cm (CD-V-EP Compact Disk Video Extended Play) and 30 cm (CD-V-LP Compact Disk Video Long Play). All different sizes can be played on socalled "comiplayers".

The 12 cm CD-V has a golden surface to distinguish it from the more famous relative CD-DA (Compact Disk - Digital Audio) of the same size.
Each disk can keep 9 000 single pictures or 6 min video (PAL) and 20 min stereo sound (HiFi).
The EP and LP disks are dobblesided and keep 20 and 30 min stereo sound (HiFi) on each side.

LV-ROM - LaserVision Read Only Memory

The disk is for interactiv use and was introduced on the european market in late 1986 and keeps about 100 000 pictures (PAL), sound and data. The pictures are stored in analog form while the sound and text are digitalized.The disk is useful for educational and instructional purposes, and the users are both from schools, universities and private companies.

CD-IV - Compact Disk Interactive Video

A 12 cm disk can keep 600 Mb of data. It is a combination of CD-I and CD-V technology and can store entertainment, facts and educational information.
CD-IV is a detached system with it's own CPU which is hooked on a TV and controlled with a remote controller.
Time for presentation is planned in 1990/91.

THE DIGITAL SYSTEM

History

Philips was the pioneer within the digital optical storage area, and they started experiments early in the 70s. This early experiments lead to the Megadoc system which was introduced in 1978 and uses a 30 cm optical disk. Information such as text, pictures or sound are converted to digital form, and stored as binary codes (pits and lands) on the high reflecting optical disk.

CD-DA Compact Disk Digital Audio

Philips and Sony agreed to share their optical disk technology in order to develop a standard for optical recording of digital encoded music mentioned in The Red Book. The standard describes how the data (music) should be organized on the disk (CD-DA).
The CD players were an almost immediate success and some figures show this explosion by 35 000 players sold in 1983, 200 00 in 1984, 800 000 in 1985 and about 50 millions in use in 1990.
The 12 cm CD-DA disk was put into the market in 1983 and can keep 72 min HiFi sound and 32 Mb data, text and pictures.
The CD Audio disk carries an exact, digital copy of the master recording.

WORM - Write Once Read Many (Times)

On this medium we can store the information by ourselves, but already stored information can not be changed or deleted. Stored information can be reused as many times you want.

The disk is very stabil even after long storage time and the durability does not decrease even by frequent use. The first generation WORM disks were byproducts from the videodisks. The 12" disks became commersial available in 1983 and could keep 1000 Mb (= 1 Gb) of information on each side.

The second generation WORM readers became available in 1985. They are smaller and cheaper than the first generation readers and use 5 1/4" disk size. The readers exist as external and internal models.

DRAW - Direct Read After Write

This disk which is also named E-DRAW (Erasable Direct Read And Write), is quite similar as the WORM disk and is used for storing the same type of information, but differs in some ways. If we recognize somthing wrong with already stored information, these parts of the disk can be marked as unuseable and the correct information stored. The laser will ignore the market areas on the disk. The disks which were

introdice in 1984, exits as bot 5 1/4" and 12" with storing capacities from 300 to 1 000 Mb on each side.

The High Sierra Group Format or The Yellow Book

In 1983, Philips and Sony announced, as an extension to CD-DA specification for data storage, a standard for CD-ROM.
ROM is the acronym for Read Only Memory, because the compact disk may only be read; it cannot be written on by the user.
The CD-DA specification in The Red Book defines how PCM-encoded audio could be stored, but if compact disc was to be used for computer data, there were a few changes to be made.
In november 1985 companies working in the optical media area came together near Lake Tahoe in High Sierra to make agreements for a standard for the new optical media CD-ROM.
They named themselves the High Sierra Group, after their first meetingplace. Their common agreement became the specifications mentioned in The Yellow Book. The defacto standard became later ISO 9660.

The most specific difference between The Red and Yellow Books is that The Red Book dictates the CD Audio specification so thoroughly that worldwide compatibility of players and discs is guaranteed, while The Yellow Book leaves much to the implementations of the individual manufacturers.

A more detailed presentation of CD-ROM is given from page 10.

CD-I - Compact Disk Interactive

CD-I is like CD-DA and CD-ROM a result of the cooperation between Philips and Sony and in february 1986 they announced the standard for CD-I. The specification mentioned as The Green Book describes methods for providing audio, video, graphics and text.
When I visited Philips in august 1989 they were ready to distribute the CD-I equipment into the market.
The 12 cm CD-I disk can keep 650 Mb of information and has 16 channels. Each channel can give 70 minutes playing time; that gives a total of about 19 hours of mono speech.
Depending on the quality, the count of pictures stored on one disk differ from 1 000 pictures in high quality and complete color possibilities (256 colors) to 20 000 pictures with more simple graphic and few colors.

One of the main disadvantages with CD-I is that it is using it's own CPU and is a single station which cannot be connected to a PC, but like a CD-DA player the CD-I unit can be connected to a TV set, videoplayer or stereo equipment.

Potential CD-I applications are entertainment, education, training, in-car navigation, home shopping and reference tools.

CD-ROM XA - Compact Disk Read Only Memory Extended Architecture

CD-ROM XA is a 12 cm disk equal CD-ROM and a result from the cooperation between Philips, Sony and Microsoft. The first release of CD-ROM XA was announced in march 1989. The CD-ROM XA specification makes it possible for an application to play audio information at the same time that it retrieves other interleaved information such as text, images and graphics from the CD-ROM disk.
CD-ROM XA is a bridge between CD-ROM and CD-I and is targeted at mainly professional and institutional markets and reference type applications. The CD-ROM XA system is basically transparent for any PC and independent of a particular CPU and operating system.
CD-ROM XA is just an ordinary CD-I for the PC-world.

DVI - Digital Video Interactive

The DVI concept was developed at David Sarnoff Laboratories of RCA in Princeton, New Jersey. DVI is a cooperation between IBM, Microsoft and Intel. The prototype exists since march 1987 and integrates graphics, audio and video images with text.
The DVI disk is 12 cm diameter and the equipment is to be connected to a PC.

The DVI concept is build up around two microchips placed in the PC. The pictures are comperessed by a factor of 150. For the compress process 2 video display processors (VDP) chips with VLSI (very large scale interface) architecture. One chip handles the compress algorithm and permits not only singel images but motion/video film, text and graphic in the same image. The other chip handles the dissolution of the image, screen size and the interface against the PC. The concept is based on storing the canges in the image.
The producers hope that DVI will replace films, video casettes, videodisks and different compact disks.

ERASABLE DISKS

The 12 cm erasable or WARM (Write And Read Many (Times)) disks to day are based on magnetooptical storage of the information where a thin magnetic layer covers the reflective layer of the disk. The needles in the magnetic layer is placed horizontal in the plane of the disk.
An intens laser beam heats a part of the disk while a strong electric coil change the magnetism in that part.
The disks can keep from 300 to 650 Mb data.
Erables, just like WORM systems, lack standards in the interfaces, size of disks and drive system, and in the lack of drivers, or software for interfacing the optical drives with microcomputer workstations.
Another problem for WORM and erasables has been the slower access time and data transfer rates when compared with Winchester hard drive systems.

To day's erasables have 60-70 ms access time and 5 Mbits per second data transfer.
With increased production and sale, the cost for drives and disks will decrease.

CD-ROM

A CD-ROM is a 12-cm-diameter CLV disk which can hold about 600 Mb of data, the equivalent to 275 000 typewrited A4 pages or 1600 floppy disks. The information is stored in a five km concentric track on the disk.
The CD-ROM has a digigal output signal and does not need any digital/analog convert mechanism.
CD-ROM is originally developed for storing textual and graphical information, not sound like CD-DA and therefore it needs a much better error correction system for the encoded-data than CD-DA.

APPLICATIONS FOR CD-ROM

The application areas for CD-ROM can be divided into two main groups:

1. As a commercial product as f.ex. information databases

2. As an in-house product for storing internal information such as catlogs, manuals, reports a.s.o.

The commercial products cover many areas such as:

Library catalogs
Company information
Chemical data
Dictionaries
Encyclopaedia
Maps
Pictures
Statistics
Patents
Phone catalogs
Sparepart catalogs
Abstract journals
Standards

Beside CD-DA and WORM disks, CD-ROM is the only digital optical storage media that has become a hit and it is specially in the library world the users are found.
The CD-ROM is aimed at the library, school, agencies and business market.
Since the first CD-ROM databases were bibliographical or reference databases having a corresponding online database or a printed abstract journal, it was natural that the libraries were the first and are still the greatest users of the new medium.
Many of the databases used for online retrieval of information the last 15-20 years have today a corresponding CD-ROM

version. DIALOG, one of the big hosts offering more than 300 different databases also offers some of these databases on CD-ROMs with DIALOGs user interface or a menuoriented system. The product is named DIALOG OnDisc.
Most of the producers of CD-ROMs offer menubased user interfaces for searching their databses.

Some of the databases are often available from more than one CD-ROM producer.
For instance, the abstract journals Current Index to Journals in Education (CIJE) and Resources in Education (RIE) corresponding to the database ERIC are now available on three different versions on CD-ROM from DIALOG, SilverPlatter and OCLC at three different prices. As a result of this, one must choose between three different user interfaces.

In Great Britain the organization NERIS (National Educational Resources Information Service) offers three CD-ROMs covering firms and institutions working with the production of educational aids.
CD-ROM is a suitable media for publications with irregular and not so often updates. For instance Groliers Electronic Encyclopedia with 21 volumes and 9 million words is available on CD-ROM at 199 USD.

A new version of The Oxford English Dictionary (17 volumes) will be available on CD-ROM. This edition will replace the old 12 volums one on CD-ROM.

CD-ROMs with different translations of The Bible are available and the norwegian publisher NORBOK will produce a CD-ROM and floppy disc version of the norwegian translation of The Bible.

ADVANTAGES/DISADVANTAGES WITH CD-ROM

Compared with magnetic disk storage the advantages with CD-ROM are quite obvious; Since CD-ROM is an optical storage medium, the data is physically pressed into the disk. This means that the data is nonvolatile, and because there is no contact between the laserhead and the disk, CD-ROM disks do not suffer from head crashes or physical wear. The medium itself is extremely durable and difficult to damage and there is as yet nothing to suggest that they have a limited life-span.

Distribution

CD-ROM is appropriate for the distribution of large amounts of data. This could be commercially available text data as library catalogs, abstract journals, books, magazines and peridicals, market and finaciel information, parts list, repair manuals, historical data and other material that is typically distributed through online services or on paper.

CD-ROM is not limited to textual information; Pictures, drawings, maps and audio information can also be digitized and distributed.

Online ordering

Many current CD-ROM applications are part of an integrated system; Libraries have CD-ROM-based card catalogs and periodical indexes, several companies offer a CD-ROM catalog as a part of an online ordering system for their customers.

Storage application

Many institutions are working hard with large storage problems and are looking for new storage applications for their account, reports, correspondance, different publications etc. Here will CD-ROM be a good alternative for their printed products. Likely the large universities and public libraries have subscriptions to periodical litterature with a continous demand for shelfspace. On a single CD-ROM we can store several volumes of an abstract journal, journal or a whole encyclopedia.

Interlibrary loan

CD-ROM can replace todays card or microfiche/film catalogs. This gives exellent posibilities for interlibrary loan. Union libray catalogs/databases with member library holdings can be used to identify owing libraries for interlibrary loan purposes. Since the users can access so many citations more easily than they could using printed sources, interlibray loan requests may increase. Verification of interlibrary loan requests becomes easier when the librarian can search a CD-ROM database rather than manual search through printed catalogs.

Archiving

Many institutions like libraries and museums have old and rare collections that should be preserved for the future. Much of this old material is produced on "non-acid proof" paper that over time will degradate. There is a time-consuming and expencive process where the paper can be deacidified and restored, but the alternative is just to use an optical scanner and transfer the information to a CD-ROM.

Life expectancy

The CD-ROM is a too new media to tell us the life expectancy. For optical disks in general one predicts more than 10 years, probably much more, but for CD-ROM much greater because the data-carrying pits are physically pressed into the disk.

There is some confusion about the durability. Some institutions reports that tests at extremely high temperatures and humidities done in the laboratory, dammage the protective layer and oxidize the reflective part of the disk. The question is if these tests can be compared with the real use situation. But as far as the protective coating is not distroyed, there is no life-time limit for the disc.

The CD-ROM disk itself is resistant to damage caused by dust and mishandling.

COMPARISON BETWEEN CD-ROM AND PRINTED/MICROFICHE EDITION

Reference tools

The printed version of a reference tool like encyclipedias, handbooks, directories etc. have limited search possibilities. Most of these editions have a controled vocabulary given in an index, keyword list or the information is direct indexed under the different keywords. We depend on using the right keyword or index phrase to retriev required information.
By using the corresponding CD-ROM, normally the full text is searchable and we can do combinations between different keywords. This gives us possibilities to find the right and exact information easily.

Abstract journals

Many of the bibliographic databases used for online retrieval for many years now, have corresponding printed versions. These abstract journals were the first systematic retrieval tools for litterature. Normally they ar built up around a controlled vocabulary given in a thesaurus and the subject index has annual or semiannual cumulations. This means for retrospectiv retrieval where we usually look 10-20 years back in time that we have to do at least 20 entries.
Generally we have to do more than one entry in each cummulated index, to be sure not to loose anything.
By using a CD-ROM version of the abstract journal, we get extended search possibilities with use of boolean logic (and, or, not), proximity operators and all the fields of the references are searchable.
This gives us much better retrieval possibilities for information compared with manual searching.

Most of the abstract journals have semimonthly/monthly updates while the corresponding CD-ROM version usually have quaterly updates.The worse consequence of this is that we loose the latest 3 months of information. This can of course be compensated by doing an online search in the corresponding database.

Spareparts

Many sparepart producers distribute their catalogs in microfilm or microfich form. All of us who have been to our car dealer looking for a sparepart to the car, know how much time the shop assistant needs to find the right part and its part number. Some of the car producers have ongoing projects looking for how CD-ROM can replace the microfilmed editions.

Library catalogs

Many libraries today have closed their card catalogs, and put the whole catalog online in a library automation system, with a microfilmed version. The microfilmed version is better suited for distribution than the card catalog, but still has limitations in search capabilities like the card catalog. CD-ROM is a much better mass distribution media, and has much better search capabilities than the printed or microfilmed versions.
In Norway the National Bibliography has become avaliable on CD-ROM this year and in Sweden all the public libraries have closed down the card catalog and the microfich version and changed to a CD-ROM version.
A number of institutions have begun to distribute MARC cataloging records from the Library of Congress on CD-ROM. These are being used by small libraries for retrospective conversion of cataloging records to machine-readable format. Companies offering these services are OCLC, Washington Library Network (LaserCat) and Library cooperation (BiblioFile). The same systems described for retrospective conversion can be used for current cataloging.

COMPARISON BETWEEN CD-ROM AND ONLINE SEARCHING

When searching for information on a CD-ROM versus online searching in the same database, we avoid the expences for communication, royalities to the host and database producer and tax for the retrieved information. When we have obtained the right equipment for using CD-ROM (PC and CD-ROM reader) the only costs is for purchase or subscription to the CD-ROM. Unlike online searching increased use does not increase the costs. This makes it easier for institutions to make their annual budgets.

Provided that the equipment is working, we do not have problems with unstable communication lines or a host/database which is down. The CD-ROM database is always "online".
We can use as much time we want in learning the different producers user interfaces without stressing factors such running taxameter.
Because the users do not have a taxameter hanging over their heads when using CD-ROM databases, they probaly will used more time for a search compared with online searching, and are more relaxed during the search.

This gives students and faculty members the chance to learn the techniques of Boolean logic without additional cost to the library. With this opportunity to learn the search technique "offline" and get specialized it becomes easier to take the step into the online litterature search world.

Because of the way the data are organized on the CD-ROM, the response time is not as good as for online retrieval.

By using offline communication as for CD-ROM, we have much larger resources to our disposition and therefor it is possible to produce userfriendly search dialogs with extended use of menus, windows and help functions on the screen. The resources in this case is the processor in our PC. Online user interfaces have limitations of technical nature:

1. Because of a multiuser environment and slow communication lines, online searching is based on line by line dialog. Most transmission rates for online searching varies between 2400 - 9600 bps. This is to slow for efficient screen by screen transfer as used by CD-ROM.

2. We are limited to standard terminal emulation, which in practice means TTY emulation. The dialog is transfered line by line without use of colors.

3. We are limited to a multiuser environment using search dialogs with as low as possible demand on the resources of the computers.

When we do get much faster transmission rates on the telecommunication lines (for instance with ISDN net), more powerful computers at the hosts and standardized terminal emulators, it will be possible for the hosts to use screen by screen dialog to the user's terminals as we find it for CD-ROM.

Many of the databases we are searching online are to large to have one volum on one CD-ROM (for instance CHEMABS, BIOSIS, INSPEC, MEDLINE ..). At the hosts these databases exist as one file covering from 20 to 30 years, and we can do one search covering the whole period. For some databases this reply from 30 to 50 CD-ROM disks. Even if we have the CD-ROMs in a network or jukebox, it will take time to serach through all the CD-ROMs since we only can search in one CD-ROM at the time.

HARDWARE AND SOFTWARE CONSIDERATIONS

PC and CD-ROM reader

Neccesary equipment for using CD-ROM disks is a CD-ROM reader and a PC with software making it possible to use the disk. Most of todays CD-ROM readers are standardized. The large companies like Philips, Sony, Hitachi etc. have agreed to produce their readers according to the High Sierra Group

specification (se page 8). This specification defines how data should be arranged on the CD-ROM. An extension of the defacto standard became later ISO 9660. CD-ROMs produced after this recommodatation can be used on readers following the same consept.
The PC should have a color monitor. Most CD-ROMs have extended use of colors; windows, menulines, searchterms, indexes etc. have different colors.
A printer is not absolute neccesary, but convinient for taking out paper-prints.

Hardware costs

The costs for equipment differs from country to country. In Norway we have to pay about 1400 USD for the CD-ROM reader, about 2500 - 3500 USD for the PC depending on modell and processor and about 500 USD for the printer.

Single stations versus multistations

Most of the equipment used up till today have been single user stations i.e. up to 8 CD-ROM readers connected to one PC by daisychaining. Problems arose when more than one PC was attached to the same CD-ROM reader.
Daisychaining is based on the SCSI (Small Systems Computers Interface) specification which give the possibility to attach 8 peripheral units in a chain via a bus. Different solutions exists. CD-ROM readers based on the SCSI inteface can be hooked together in a chain or built into a stack. The maximum number of units today are 8. We can still only search one disk at the time, but save the time it takes to change disks.
Fig. 2 shows CD-ROMs in a rack.

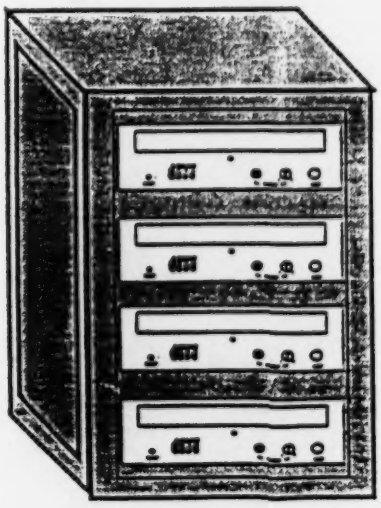

FIG 2 CD-ROMs in RACK (DAISYCHAIN)

CD-ROM in a NETWORK

A PC can be looked at as an expanding world with its own horizone. The more this world expands, the more demands are put on the software and different applications. A stand-alone PC uses its own operating system. A network must adjust to the different application software on the different PCs in the network acting as all the PCs are stand-alone stations.
In that way the network becomes transparent to all the application software in the network.
The ability to network several users on one CD-ROM from several microcomputers has been a wanted feature especially by the libaries.
Some companies, mainly american are on the market offering multiuser systems:

Artisoft Inc. with LANtastic
Meredian Data Inc. with CD Net
Online Inc. with OptiNet
SilverPlatter Inc. with MultiPlatter

The respons time for CD-ROM is comparatively slower compared with online searching, and the main disadvantage with multiuser systems is that this time can be further increased. It is reported very few multiuser installations of CD-ROM in Europe, but some exists in USA.
To link up CD-ROMs, especially from different producers in a network, can give compatibility problems between the application software for the network and the software from the different CD-ROM producers, but time will probably solve these difficulties. Another fact is that database producers have been reluctant to push this kind of development in order to retain maximum control over the number of groups that can use one subscription to an optically based product.
Fig. 3 shows CD-ROMs in a network.

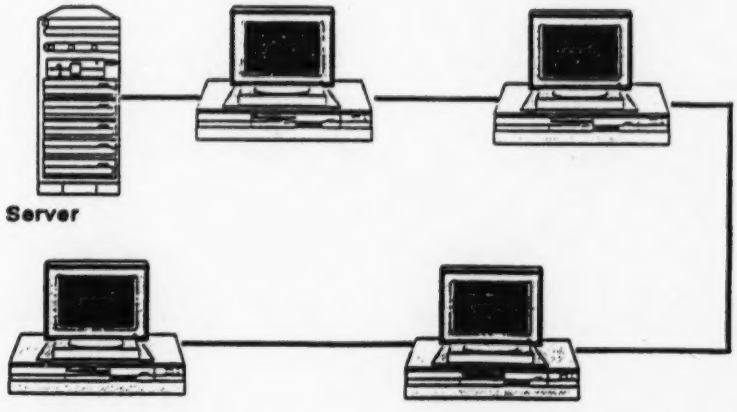

FIG. 3 CD-ROMs in a NETWORK

SCSI - Specification

SCSI is the acronym for Small Computer Systems Interface. Up to 8 units following this standard can be hooked together via a bus (a cable with 50 wires). This means that we for instance can connect 5 PCs, 1 printer and three CD-ROM readers via the SCSI bus. This solution makes it possible for all the 5 PCs to search the same CD-ROM at the same time.

CD-ROMs in JUKEBOX

Gradually as the number of CD-ROMs offered are increasing, the libraries will subscribe or buy more disks. These can be from one or more producers. For more convenient use of the disks, we can as mentioned above use the daisychain or network solution, but other possibilities exists. We all do remember the jukeboxes for gramaphone records placed at cafeterias. The same principles is also used for optical disks.
Solutions exists for jukeboxes with up to 200-300 CD-ROMs.
Fig. 4 shows a jukebox for CD-ROMs.

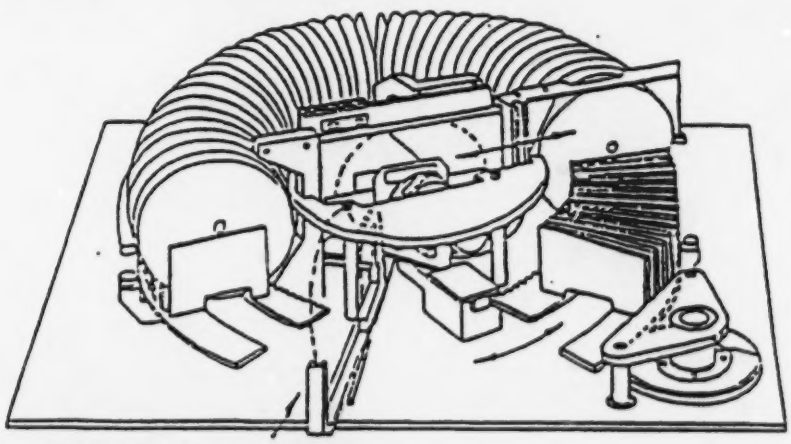

FIG. 4 JUKEBOX for CD-ROMs

HARDWARE AND SOFTWARE

To make a PC communicate with a CD-ROM reader, the PC has to be configured to recognize the reader. All applications connected to the PC must be defined, so the PC know about them. Under the operation system for MS-DOS machines we have to put commands that makes it possible for the PC to communicate with the CD-ROM reader. This central commands are included in the 2 important files autoexec.bat and config.sys. Each time the PC is either cold or warm booted, data is read into the internal memory or RAM of the PC and configures the PC so it can communicate with the CD-ROM. Most of the PCs produced today are supplied with an internal memory from 640 Kbyte to 8 Mbyte. Dos as operating system cannot utilize more than 640 Kbyte RAM, but some software applications working under DOS can use socalled expanded memory. As Far as I know none of the CD-ROM software producers

have made their software utilize this possibility. If we are going to use our PC for many different applications with extensive use of RAM, we do have problems.

Most CD-ROM software demand from 510 to 550 Kbyte free internal memory to work. We have even tried to install software with a demand of 560 Kbyte free RAM. DOS itself needs 70 Kbyte, and if our CD-ROM is working with MSCDEX (se page 21), MSCDEX uses about 30 Kbyte of the RAM. That means without other memory resident software in the RAM, we only have 520-540 Kbyte RAM to our disposition. Hopefully today software exists with possibility to put some of the RAM demanding software in expanding memory.

If we are going to install CD-ROMs from different producers, where some of them are working under MSCDEX while others use their own drivers, we will have problems.

The conclusion is that our PC must have at least 640 Kbyte of RAM.

MSCDEX (MS-DOS CD-ROM EXTENSIONS)

Drive standards specify how the drive interpret disc formatted information. When a PC is accessing a CD-ROM, we need drive software so the PC can recognize the CD-ROM driver and access the formatted data on the CD-ROM disk. Ideally, any disc can operate on any drive which uses the High Sierra Group Disc standards, but still some problems can occure. When the CD-ROM producer is going to make a CD-ROM, he has 3 possibilities for software solutions:

1. He can accomodate the software to work under MSCDEX. That is the easiest way.

2. He can develope his own software, both for access to the different CD-ROM readers and CD-ROM files for his CD-ROM.

3. He can use both point 1 and 2.

DOS version 3.3 and lower has limitations itself in the way that it can not utilize internal memory over 640 Kbyte and access files larger than 32 Mbyte. A CD-ROM is about 600 Mbyte. So the programmers have to get around this problem.

Microsoft has developed special software called MSCDEX to solve this problem and simplify the installation of CD-ROMs. MSCDEX makes it possible for a PC to read all CD-ROMs produced after the High Sierra Group Format, and access the CD-ROM reader as an ordinary diskstation. The files can be treated as convetionally DOS files, and extensions permitsDOS to use files greater than 32 Mbyte. Under MSCDEX we have standardized driver software which can be used for the different CD-ROM readers. These drivers are produced by the producers of the CD-ROM readers, and not by the CD-ROM software producers.

MSCDEX and the driver software install and configure the CD-ROM reader so the CD-ROM can be accessed by the PC as an ordinary floppydisc or harddisk.

CONFIG.SYS

In the config.sys file we put certain commands used to configure the PC. Each time we either cold or warmboot the PC, will DOS as the operation system search in the root directory of the drive in which it was started for a file named config.sys. If DOS finds a file named config.sys it will configure the PC in accordance with the commands in the file. If DOS does not find a file name config.sys, it will adapt default configuration settings.
If we do some changes of the configuration values, these canges will not work until we either warm or coldboot the PC. The config.sys file cannot be executed by just writing config because the file has not a .BAT, .EXE or .COM extension. It demands either a cold or warmboot. This is a bothersome and time consuming process if it has to be done very often. Fortunately we can buy programs like warmboot and hardboot that do this operation.
A CD-ROM reader has to be defined with its own device driver (eg. hitachi.sys for a Hitachi CD-ROM reader) in the config.sys file. If the CD-ROM is not working under MSCDEX it has its own device driver. With many CD-ROMs not working under MSCDEX we must have many different device drivers. Normally we cannot have many different device drivers defined in the same config.sys file. In that case we must have many different config.sys files and firstly copies the config.sys file with the device driver for the CD-ROM we are going to use. This sounds a bit complicated, but can be simplified by using BAT files.
For CD-ROMs working under MSCDEX this is no problem because they all can use the same device driver.

Example of a config.sys file for a PC with a CD-ROM reader

```
LASTDRIVE=Z
FILES=20
BUFFERS=20
BREAK=ON
DEVICE=ANSI.SYS
DEVICE=C:\SPIRS\CDROM.SYS
DEVICE=C:\DEV\HITACHI.SYS /D:MSCD001 /N:1
```

AUTOEXEC.BAT

AUTOEXEC.BAT is a batchfile. Every time we start DOS, the command processor searches for a file named AUTOEXEC.BAT in the root directory on the disk that DOS was started from. An AUTOEXEC.BAT file is a special type of batch file that is automatically executed when we cold or warmboot the PC. The file is useful if we want to execute certain commands each

time the PC is started. This file can also be executed by just writing **AUTOEXEC.**
This file is very useful when we want certain parameters or commands to be executed every time we start the PC. For instance CLS to start with a clean screen, define the keyboard, specify path to the most used programs etc.

In the autoexec file we can place commands for easier access to our CD-ROM. If the CD-ROMs are working under MSCDEX we put the following command :

```
C:\BIN\MSCDEX.EXE /D:MSCD001 /M:6
```

Each time autoexec is executed, DOS will execute MSCDEX.EXE in subdirectory BIN on partition C.
As mentioned under the DEVICE command (Config.sys) /D: tells where **MSCDEX.EXE** can find the CD-ROM reader with adress **MSCD001.** /M:6 tells **MSCDEX.EXE** how much memory to allocate for caching information on the CD-ROM. The higher this value is the better is the performance, though each number of M allocates 2 Kbyte of valuable memory of the RAM. Recommended value for M is 10.

EXPERIENCES AT THE TECHNICAL UNIVERSITY LIBRARY OF NORWAY

At The Technical University Library in Trondheim we have been working with the CD-ROM technology for 3 years.
We have tested IBM PCs modell XT, AT, PS-2/30 and PS-2/50z with Hitachi CD-ROM drive modell 1503S and 1600s and about 15 CD-ROMs from different producers.
The equipment has been in the readingroom of the library for two years. Our struggles with software, standards and compatibility has given us some interesting experiences.

In 1988 The Library received a grant from The Norwegian Council for Scientific and Industrial Reasearch to investigate the users experiences and expectations with the CD-ROM media and how it affected the traditional services in the library. The report from this investigation is just finished (1990/Jan.).

CONCLUSION

We are living in a world with an information explosion, and all this information exists in different forms like books, journals, microfiches, films, tapes, slides etc.
A library is like a warehouse of knowledge, and this knowledge is normally delivered to the users or customers as books or paper/microfiche copies, but new technology brings new storage devices and the library acting as an information provider must evaluate new medias arriving in the market. Most of the new medias arriving today belongs to the optical family.

IFLA GENERAL CONFERENCE STOCKHOLM 1990

Division: Collections and Services

Section/~~RT~~: Government Information and Official Publications

137-OFFPUB-1-E

International exchange and documentation of official publications: a Scandinavian view

by

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Abstract

Trends in Scandinavian documentation and international exchange of government publications are used to discuss whether the present practice meets information needs of the 1990's. The intentions behind UNESCO's convention on international exchange of official publications and UNESCO's recommendations on national bibliographies are seen as the basis on which we still operate.

Changes in the role of government in society, internationalization, privatization and national versus international information needs are discussed.

It is concluded that national information needs should be met through national information systems and that the international influence on individual countries should be reflected in the documentation of official information directed towards the international library community. The skills of official publications librarians should be utilized to select rather than to be comprehensive with regard to both exchange agreements and documentation.

International exchange and documentation of official publications: a Scandinavian view

This is not going to be a state-of-the-art presentation of international exchange and documentation of official publications. Instead I shall concentrate on one issue:

> Does the way we handle international exchange and documentation of governement publications meet information needs?

Trends in Scandinavian government publishing, documentation and international dissemination of official publications are used to examine the problems behind this question.

Throughout this paper I shall be using the term " official or government publications" in a broad sense meaning publications issued by parliament, ministries, agencies and state institutions.

I consider the late 1950's and the role of government and its publishing activities as the basis on which we carry out international exchange and documentation even today.

> Exchange of government publications should advance the international availability of information on legislation, government administration of different areas of society and supply empirical data on government activities.
>
> Exchange of publications is seen as "essential to the free exchange of ideas and knowledge among the peoples of the world" and exchange agreement should ensure that material is received automatically.

UNESCO's recommendation that national bibliographies include a special part on official publications can be viewed as a further advancement of the idea of international dissemination of government information. The recommendation that availability on exchange should be indicated for each entry is yet another demonstration

of the international interest in access to government publications world wide.

International conventions of this kind are, however, seldom innovative. It takes a long time to prepare the ground, to reach consensus, and to formulate policies and many countries which have exchanged official publications for more than a century and published bibliographies on official publications long before the convention was passed in 1958 have never ratified it. Of the Nordic countries Iceland and Sweden have not done so but the Swedish annual bibliography commenced publication in 1931. The first volumes of the Danish and the Norwegian bibliographies were issued in 1948 and 1956 respectively, whereas the Finnish bibliography starts with 1961.

In the late 1950's we still had small and well defined public sectors, the limited number of issuing bodies, the amount and predictability of types of material made special bibliographies on official publications an obvoius choice. The opinion that government publications are - and always have been - very special is probably shared by all official publications librarians and the problems of adopting national cataloguing rules and the need to arrange the bibliographies according to issuing bodies called for a special bibliography. In the majority of the Nordic countries the bibliography is compiled by institutions needing the publications either for their own collections or as in the case of Denmark for the international exchange. Although some variation exists, the general rule has been to include publications issued by parliament, agencies and institutions listed in the state calendars independent of number of pages. State supported publications have in some countries been included from the beginning, but are now omitted.

In Finland the issuing of the bibliography and the international exchange of publications are both handled by the Parlimentary Library. A full set of government publications is exchanged with The Library of Congress whereas other agreements are selective.

In Iceland government publications are included in the national bibliography compiled by the National Library, which has legal deposit of 7 copies of all national imprint, including government publications.

In Norway the bibliography is compiled by the Norwegian department of the University Library of Oslo, responsible for the national bibliography, whilst international exchange is handled by the Parlimentary Library.

In Sweden the Parlimentary Library is responsible for the bibliography, whilst the Royal Library, responsible for the national bibliography and the national information system, collects a full set of Swedish Government publications for The Library of Congress, and receives and distributes US Government publications in return.

In Denmark the compilation of the bibliography has always been tied to the international exchange of publications handled by IDE Danish Institute for International Exchange of Publications.

With the exception of Denmark the Nordic countries all have legal deposit of government publications and parliamentary resolutions behind the compilation of the bibliography.

So it was in the beginning of the 1960's and the pattern has not changed much except for cooperation with the national information systems. Since 1983 the Swedish bibliography has been produced by means of the national information system LIBRIS. Records entered by the Parliamentary Library are updated by The Royal Library for inclusion in the national bibliography. Records already in LIBRIS are updated by the Parlimentary Library with information needed for the bibliography. In Finland a similar cooperation exists and in Norway the issuing has been computerized recently and records from the national bibliography are used.

Thus technical changes and cooperation with other parts of the national bibliographies have taken place, except in Denmark where

very few resources are used for the purpose and the bibliographical level of the entries of the still manually produced bibliography is lower than in the other Nordic countries, whilst the editing principles seem superior. (The 1990 issue will be produced by means of the national information system for research libraries). Measures (omissions according to formal criteria) have been taken to be able to cope with the ever increasing amount of material, but the concept of government publications and the basis on which we exchange publications are largely the same today as they were 30 years ago.

Does this concept meet the information needs of the 1990's?

Government publishing reflects the role of the state in society. Without going into more theoretical discussions it should be uncontroversial to state that government acts to maintain its role and that government publishing reflects this.

The classical functions of government in democracies are:

- to regulate and control activities to avoid or minimize conflicts within the country
- to establish the conditions for economic, social and cultural development
- to legitimate the activities of the state

The more complex society becomes the more complicated these tasks become too even in the most stable political system and even if the state is considered as a neutral force working to obtain the best possible conditions for its citizens.

This development is reflected in government publishing:
It has probably never in the history of mankind been harder for government to obtain and evaluate information and to internalize knowledge to carry out its often contradictory functions than it has been during the last 25 years. During the sixties and seventies and well into the eighties the expansion of the public sector to

fulfil the first two needs of government and the corresponding growth and changing pattern of government publications are well known. Furthermore an undergrowth of grey government literature sprouted which librarians were eager to cover and make accessible.

The trends in recent years to cut public expenditure regarded as a drain on the national economy and intentions to either run public institutions as private companies with a certain degree of self-financing where publications programmes may be commercialized or with total privatization of activities are well known. At the same time desk-top publishing facilities may make any memo initially intended for internal use look like a very official document, which may or may not be included in the bibliography and/or sent on exchange.
State institutions may adopt policies to pay private companies to solve problems, as private enterprise may be considered more effective - and as a means of boosting the private sector at the expense of the public sector - although the net result is the same. The publicised results will not formally be government publications. Government agencies may cooperate with private companies, with counties or organizations, even with foreign companies and the origin of the ensuing publications may be difficult to determine. Statistical information has always been recorded and the national statistics are as a rule in high demand and included in most exchange agreements. Many more data can now be collected and fed into mainframes and special services made available - at a price, and information previously available has been excluded from the printed series.

The construction of databases for many purposes - which makes perfectly good sense - does, however, also change the traditional pattern, and government databases are not included in the bibliographies and tapes are not available on exchange.

Research patterns have changed too. As the only Scandinavian country Denmark until 1987 included scientific papers from universities in the bibliography and in exchange agreements. The Swedish bibliography has omitted material from research institutes and centers attached to institutes of higher education, whereas publications

from national research institutes are still included. Research paid for by National Research Councils, and research carried out on government contracts will be recorded only if carried out and published by an institution that meet the criteria for inclusion.

Government influence on our daily lives has increased and most Scandinavians cherish the welfare state in spite of the high taxation and other unpleasantries. Government must legitimate its activities in ways unforeseen in 1960. To create concensus on major issues and to maintain the welfare state demands are made on government to inform the citizens.

In a Danish official report on government information the state was defined as: the responsive state, attentive to the citizens and a "new model where state and citizens share a mutual responsibility" and where the state with a sense of responsibility informs the citizens. Information is divided into several groups:

- information on rules and regulations
- information on administration
- information to ensure influence by citizens
- information as alternative to legislation
  - news information
  - follow-up
  - state-of-the-art information

It is obvious that the need to market government as serviceminded is reflected and elements of self-promotion are easily identified. This information is of course government information if in printed form - TV spots are not recorded - but should this type of information directed towards the citizens be included in exchange programmes and should it all be included in the bibliographies. (The Finnish bibliography does omit some of this material according to the preface of the 1986 edition.)

Not only national government publications are needed to cover official or semi-official information on specific countries. If any of you wanted to check the economic situation of Sweden before travelling to Stockholm, you probably used the latest OECD report, even if a Swedish report in English could be located.

The international interdependence has grown, and although we might not be living in the "global village", we do nevertheless live in a world where the national factor in many ways has to take second place to the international one.

International and para-national organizations have emerged and expanded concurrently with the national state apparatus, and the sheer volume of publications has become more or less incalculable. And in this jungle documents of substantial information value and possibly of major importance to the individual country are to be found, e.g. Denmark and EEC.

The Nordic Council and Nordic Council of Ministers have a publishing programme within the areas of Nordic cooperation: statistics, environment, social affairs etc. These publications are included in the national bibliography of the country in which they are published and in the Danish Bibliography of Official Publications.

These examples of the changing role of government and the change in government publishing together with the influence of para-national or international organizations are familiar to all government publications librarians, and many more examples could be given.

All our bibliographies contain fundamental source material on government activities if available in print, the development and changes in government policies can be deduced - and the material is exchanged according to agreements.

Looked upon this way, we certainly should be able to satisfy information needs through our published bibliographies, our national systems, and through our exchange programmes. Further information can be found in publications from international organizations and of course publications issued commercially.

My view is that we flood the international library community with redundant information, that national information needs should be covered through the national information systems, and that printed bibliographies should be selective, annotated and aimed at the

international library community, not just at other specialists on government information.

During the 60's and 70's and into the eighties prior to on line national information systems the bibliographies were indispensable tools for any reference librarian working with students and scholars within the social sciences. Valuable material otherwise not recorded was made accessible. The national value overshadowed international interests.

Those were the years when "everything was possible" and resources could be counted upon if the need was proved and we needed the grey literature from government, universities and private enterprise, and we thought that technical solutions would overcome all difficulties.

Thus government publications are - if they have been collected - recorded to a larger extent than national imprint originating in other sectors, and commercially published government publications may not be recorded in the special bibliographies and not included in exchange programmes regardless of contents.

This means that a two page paper issued by a state authority on new customs regulations will be recorded in the bibliography. A pamphlet of 44 pages issued by the trade organization which may loose on the new regulations is to be found among the unrecorded ephemera in the national library and a 300 page project report, including a large bibliography prepared by university students with some luck may be located if it is carefully cited in an article. The most important document may, however, be the ruling of the court in Luxembourg. And after a span of years a new folder on revised customs regulations will appear in the official publications bibliography.

Annual bibliographies published with much delay are of very little national importance when a national on line information system is in common use and the concept of main entries is meaningless. Some government publications do not boast their origin on the title page, but somehow official publications librarians find out. It

should be possible as a general rule to include this information in the national information system. The ephemera in our national libraries include government publications, they are kept and are available for future use but not included in the national bibliography on monographs and periodicals unless they meet with established criteria, but our national information systems may contain any document any library need to collect and catalogue.

I think official publications librarians should use their expertise to select publications for inclusion in annotated bibliographies in different media or to create bibliographies from the national and other systems that include information from international and para-national organizations. This would reflect official publishing and the situation of national governments in the 1990s.

Selectivity should be applied to material sent and received on exchange. We all know that much of the material we send on exchange will be discarded and that much of what is kept will not be used because we know how much we ourselves discard.

It has taken many years to learn that material received on exchange is not free, the resources used to process and store the material are the same regardless of the way it was acquired. This should, however, not prevent us from exchanging material, the method is not to blame for unwise use.

The Library of Congress is an important exchange partner - they want everything, sometimes even more - and the microfiches received in return are a common problem. Again it should be possible to select according to information needs. Monthly Catalog is a handsome bibliographical tool as are the standard American report bibliographies. A wealth of information is to be found on all subjects but it is not used enough - in my country anyway - because information on special subjects are looked for elsewhere if you are not an official publications freak. Monthly Catalog is accessible via OCLC and Dialog but we should be able to subscribe to bibliographical records and documents according to profiles. We would keep the records including location of documents according to classification codes in our national systems. This way the information

would be used the way it deserves. The Medline project of the University of California, Berkeley proves that it can be done.

If US Government publications are not utilized in Scandinavia how should we expect Scandinavian government publications to be used abroad. We should use our skills not to be comprehensive but to select and make available according to present information needs.

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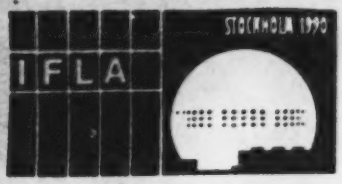


Division: Collections and Services

Section/~~PT~~: Government Information and Official Publications

138-OFFPUB-2-E

Parliamentary documents and other official publications

- S W E D E N -

by

Lisbet Hansing Engström
Research Service of the Riksdag

IR0534481

For internal use only:

Meeting No: 133

SI: yes/no

Abstracts

Parliamentary documents and other official publications - Sweden

A brief description of the legislative process in Sweden and the documents produced at different levels in this process. Details about the classification of the parliamentary print. General information about some other sources to legislation etc. Background information about the authorities in the public sector.

RIKSDAGENS UTREDNINGSTJÄNST
RESEARCH SERVICE OF THE RIKSDAG
Lisbet Hansing Engström

1990-04-26

PARLIAMENTARY DOCUMENTS AND OTHER OFFICIAL PUBLICATIONS

- SWEDEN -

Introduction

The **Parliament** (Riksdagen) is the centre of national politics in Sweden. The Riksdag is the sole legislative body, decides on taxes and the budget, and examines the government and the administration. The Parliament has one chamber with 349 members, all elected in direct elections every third year.

The **Government** (regeringen) is the executive authority and is responsible to Parliament. The **Chancery** (regeringskansliet) which comprises thirteen ministries for different fields of activity, drafts and plans government business. An organ for coordination is the **Cabinet Office** (statsrådsberedningen).

The ministries are usually not involved in the direct administration and implementation of policy. This is a task for the **Central Administrative Authorities and other public authorities** (statliga myndigheter). They enjoy a marked degree of independance in the relation to the ministries. Their counterparts in other countries would usually be the departments of the

235

Ministries.

For administrative purposes, Sweden is divided geographically into twenty-four counties. The **County Administrative Boards** (länsstyrelserna) represent the State in each county.

A considerable part of the public sector is exercised by local self-government, locally in the so-called **primary communes** (kommuner) and regionally in the **county communes** (landsting).

Documents of all kinds, e.g. reports, protocolls, statistics, decrees, regulations etc, are produced at all levels. A governing principle in Sweden, established in the Freedom of The Press Act, is the **public nature of official documents** which means that all citizens have free access to all documents drawn up within or received by any public authority. Restrictions in the free access are only allowed when it comes to matters of national defense, the personal or financial affairs of private subjects etc.

Legislation in Sweden

The principle of parliamentarism is the basis of the Swedish legislative process. The legislative power belongs wholly to the Parliament. This rule is, however, modified by the possibility of delegation of legislative power to the Government in certain fields and within certain frames. Besides the Government has

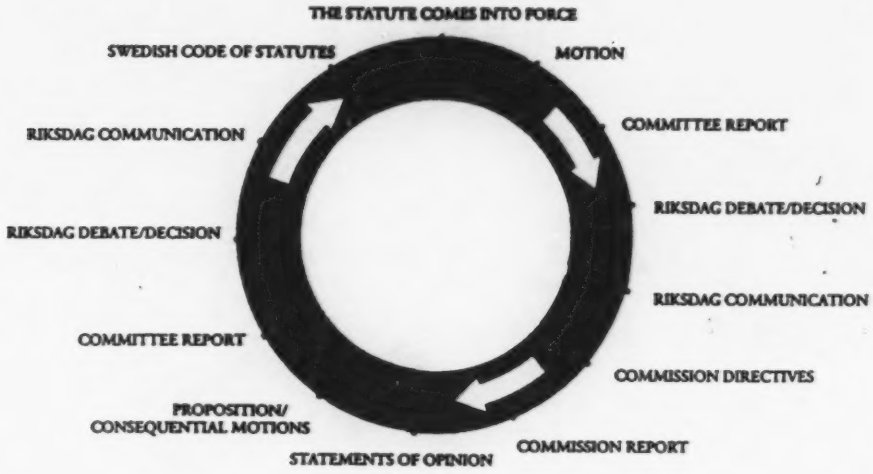
directly the right to issue certain normative rules. The Parliament can always interfere in this "free" sphere by enacting laws to supersede government provisions.

Perhaps more important than the formal rules is how they work in practice and especially how the preparatory work is organized. Practically all enacted laws are based on Government bills, the most important of which are founded upon reports from governmental commissions of enquiry. These commissions are appointed by the respective ministers but are very often composed, at least partly, of parlamentarians, even from the opposition parties. The reports from the commissions are usually circulated to various authorities and organizations for statements of opinion before the bill is drafted.

This participation of parliamentarians, authorities and organizations in the pre-legislative work facilitates the legislative process. It normally takes only a few weeks for most bills to pass through the parliamentary machinery.

Outside the legislative procedure falls the budget process, which does not result in a formal law like in most other parliaments. A great many other decisions of the Parliament are also not clothed in law texts, namely explanatory statements of varying precision and binding force and requests to the Government to draw up a bill or to investigate in some question.

The legislative circle gives an overall view of the various documents produced in the process of legislation. The process may be started in various ways and all stages may not always be involved.



Legislative and other proposals can be submitted to parliament by the Government in a bill (**proposition**) and by members in a private bill (**motion**). They may submit proposals on practically any matter within the jurisdiction of parliament but under certain time-limits. Some other parliamentary bodies also have a limited right to initiate legislation.

All proposals are referred to a Committee which in a report (**utskottsbetänkande**) has to recommend the Chamber on what decision to take. The decision by the Chamber is, if it involves the Government, communicated to the Government (**riksdagsskrivelse**, rskr).

Lavs are issued in the Svedish Code of Statutes (**Svensk författningssamling, SFS**). If the Government decides to appoint a Commission (**kommitté**), directives (**direktiv**) are worked out. After usually one to two years the Commission delivers an offical report (**SOU or Ds**) which is circulated for statements of opinion (**remissyttrande**) before the bill is drafted. In some cases the bill is examined by the Law Council, **lagrådet** (composed by high justices) before it is submitted to parliament.

Lavs and other regulations

All **lavs** (lag), lav amendments and **government statutory orders** are published in the **Svedish Code of Statutes** (Svensk författningssamling, SFS).

Most of the lavs and orders can also be found in **Sveriges rikes lag**, a private Code of Lavs published every year.

The Svedish constitutional documents - the **Instrument of Government** (regeringsformen), the **Act of Succession** (successionsordningen), the **Freedom of the Press Act** (tryckfrihetsförordningen) and the **Riksdag Act** (riksdagsordningen) are published by Parliament in a special edition every third year: **Sveriges grundlagar**. Also available in English, French and German with an explanatory introduction.

An inventory over Swedish laws translated to other languages is published in Ds 1990:7 - **Svenska författningar i översättning till främmande språk.**

Many public authorities issues regulations in their field, both decrees by delegation from government and rules for implementation, in their own the Code of Statutes.

Parliamentary documents

The parliamentary year is called **riksmöte** and starts usually in October and ends in June.

During a year some 200 Government Bills (including the budgetbills), some 4.000 private bills from Members, 700 questions and 250 interpellations are dealt with.

The printed records from the debates, committees, bills etc comprise some 60.000 pages a year.

Printed records, reports and debates and decisions are collected in the parliamentary print which consists of seven parts named A to G.

A - **Riksdagens protokoll**: records from the proceedings and decisions in the chamber (including questions and interpellations). Provisional records are available the day after the debate.

B - **Propositioner, skrivelser och redogörelser:** Government Bills and Reports to parliament. The Budget Bill in January always has the number 100, the Supplementary Budget Bill in April 150 (the fiscal year runs from 1 July) and the report of the activities of government Commissions (**kommittéberättel sen**) 103.

C - **Förslag och redogörelser:** reports and proposals from parliamentary organs (e.g. from the Ombudsmen, the Riksdag Auditor etc)

D - **Motioner:** private bills from members. The bills are novadays numbered according to subject matter and committee. Motion 1990/91:Fi201 means that the motion has been submitted to the Committee on Finance and that it concerns economic policy. Bills in connection with Government Bills are numbered 1-99 for each Committee.

E - **Utskottsbetänkanden:** reports from the Committees. Each of the 16 Standing Committees is numbered separately. 1990/91:Fi12 means report number 12 from the Committee on Finance in the parliamentary year 1990/91.

F - **Riksdagsskrivelser:** formal communication to the government of parliamentary decisions

G - **Register:** register to all parliamentary documents. Contains also a register of the members' parliamentary activities.

Other information on parliamentary business

Från Riksdag & Departement (From Parliament and Ministries) is a weekly paper with news regarding parliamentary work and decisions, governmental work and decisions, all new laws, publications from authorities etc. **Riksdagens Årsbok** (Yearbook of parliament) contains a summary of the most important decisions in parliament during a year, description of the parliamentary year etc.

The directory **Riksdagen 1989/90** and the book **Fakta om folkvalda** give information about members etc and **Riksdagen - de folkvaldas arbetsplats** is a brochure for visitors (available in Swedish, English, French, German and Finnish).

Apart from these there are provisional registers, epoque registers (since 1809), biographies of members, historical works etc.

Other documents from Government and authorities

Bills and reports to the Parliament are part of the parliamentary documents.

Official reports from the government Commissions (utrednings-betänkande) are published in two different series, SOU (statens

offentliga utredningar) or Ds (departementsstencil) depending on the number of copies. The directives to the Commissions can be found in a yearly edition **Kommittédirektiv**. The yearly report to Parliament on the activities of the Commissions, **Kommitté-berättelsen**, is part of the parliamentary print. Some 110 SOU and some 80 Ds in different fields are published every year.

For every budget year a list of all appropriations and the rules combined with the appropriations can be found in **Statsliggaren** (one for each ministry).

The public authorities also publishes official reports. Official statistics in most fields are published by the central authority Statiska centralbyrån (Statistics Sweden). **Statistisk Årsbok** (Statistical Abstracts of Sweden) provides summary statistics in many fields.

An annual bibliography on Swedish government publications is published by the Library of the Riksdag in **Statliga publikationer - Årsbibliografi**.

In the yearly Swedish State Directory, **Sveriges statskalender**, parliament, government, all authorities and communes, and many organizations etc are listed.

In the publication **Statliga myndigheter** (state authorities) the history, tasks and organization of some 400 authorities are described.

Databases

Rättsbanken is a database with legal documents. It contains among other things all laws and orders issued in SFS as well as the regulations issued by some public authorities, information on all government commissions and their reports, part of the parliamentary print etc.

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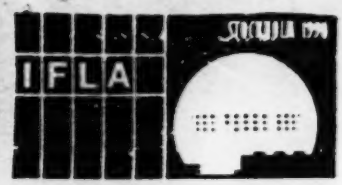

Division: COLLECTIONS AND SERVICES

Section/RT: NEWSPAPERS

118-NEWSP-1-E

Newspaper production technology today and in the 20 years to come

by

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ABSTRACT

Allard-Kurikka, Juhani

Newspaper production technology today and in the 20 years to come.

Examines developments in newspaper production techniques in Scandinavia and Finland since the 1960s. Most newspapers in Scandinavia have now invested in web offset presses, which make possible improvements in quality of printing that are particularly a concern of advertisers. The level of investment is high and has to secure production for the next 15 to 20 years. Presses now being installed will produce newspapers for the early years of the 21st century. Main development trends foreseen are an increase in the use of colour and in the number of pages. Uses of page-facsimile technology, facsimile transmission to subscribers, insertions and electrostatic printing are considered.

Newspaper production technology today and in the 20 years to come

When trying to get the picture of what is happening in the newspaper industry today, I think a short look backwards will be appropriate. I'm looking at the situation as it is in Scandinavia and Finland where, in the last decade, we have seen changes in the production techniques, maybe more than elsewhere in the world. Beginning in the early sixties newspapers in our countries began to leave a typesetting technique that had been used for almost four hundred years. The conversion from the use of hot metal for moulding types to phototypesetting, or as we called it coldset, was a great task for all the people involved.

Coldset technology made an instant improvement in the productivity and the flexibility of typesetting. It also gave the graphic workers a totally changed environment with much more office atmosphere than industrial. Many people were concerned with fear about losing their jobs and of course the heaviest jobs like etching and moulding were not needed anymore. The vast increase in volumes though demanded more people in other areas and no one was left without a job.

In the first period of the new era with phototypesetting and until today the new technology was used just to replace the tools; there was no effort made to reorganize the workflow. All emphasis was put in learning how to use computers instead of lead in typesetting. In the last years the interest for a totally new organization of the newspa-

per production process has been seen. At many newspapers today editors and graphic typographers work side by side in a new organisation and the technical departments are being decentralized, which is essential if you aim to go to computerized full page make up.

Newspapers throughout the years have been printed with letterpress machines, but in the last twenty years we have seen this old technology leave way for the offset method. The reason for this change in technology is that offset is a much more flexible process. Platemaking and the changing of plates is easier, but foremost the printing quality is higher. The offset method makes it possible to to print 4-colour with high quality and in good register.

Today most of the newspapers in Scandinavia have invested in web offset presses, but there is still a lot of work to do before we can say that the printing quality is at a level that advertisers can accept. Great efforts are today made to reach an optimum in quality, not the highest level of quality but to a level that is possible to maintain. The new offset technology offers possibilities to improvement in quality and these improvements are essential if newspapers want to stay on the advertising market in the future. If newspapers fail in this work, advertisers will find other ways to get out their message and then we will probably have no newspapers.

Today

How are newspapers produced in the next twenty years?
What is happening today will influence the technology for a very long time ahead. Today we see how newspapers are investing great sums in new technology, both in the pre-press areas and in presses. - More than ever before. A large number of new

presses are to be installed in a very short period of time. The orderbooks of the press manufacturers are filled and if a newspaper today wants to buy a new press the time for delivery is very long, up to three years from the decision.

The reason for this is that the last newspapers in Scandinavia, still printing with old letterpresses must change these to new offset presses forquality reasons and to be able to compete in the 4-colour market, and at the same time newspapers that bought new offsetpresses about 15-20 years ago now need new equipment. The quality and the capacity which the old presses have is not enough to meet the demands today.

Presses bought today are extremely flexible and many of them can print 4-colour on every page. They are also very expensive; the great request from the market has risen the prices but modern newspaper presses are also equipped with a great deal of sofisticated electronic systems, much more than in earlier days. A common figure in investment for a new press to a medium size newspaper is SEK 100-200 millions. For the bigger newspapers with demands in more pages and more 4-colour the price increases rapidly. To take an example, for Svenska Dagbladet and Aftonbladet the investment for their joint new printing plant outside Stockholm is about SEK 750 millions and Dagens Nyheter has calculated SEK 2300 millions for their new printing plant that is going to be built within the next three years.

The level of the investments is high and these investments are made to secure production for the next fifteen to twenty years. The decision for how to produce newspapers the next twenty years is to be made today. Therefore a closer look at the kind of equipment purchased today gives you a hint of what the branch is expecting from the future.

You can see two main trends: An increase in the use of colours and also in the

amount of pages. Newspapers in Scandinavia do not seem to count on significant changes in circulation.

From a technical point of view it is much easier to meet demands in higher circulation than in more colour and pages. If circulation increases you simply print a few minutes longer, but if demands of more colour and more pages rise you have to rebuild your press or install a new one.

Page-facsimile technology

A consequense of the higher volumes of the newspapers is that the presses are getting bigger and very often the newspaper houses, situated in the city-centers, cannot give the space requested for the new press. So a new presshouse has to be built outside the town while the editorial and the prepress departments are kept in town. This very common situation calls for a solution for transferring pages from one place to another. Mostly the newspapers still uses "taxi-fax". You drive the pages in a car. But many newspapers also invest in telecommunications for transferring the pages to the printing plant.

Pagefax via earthbound telecommunication or via satellite is an area of great improvement in the last years and it opens the possibility to print the paper in remote places. The technology though is very new and the greatest problem is that you have to use a network built for analog transfer to do digital transmission.
Still the technology is used by a number of newspapers and today it takes about 1,5 minutes to transfer one page.

In connection with telecommunications the question about sending the newspaper directly via pagefax to the reader has been aroused but as things are we do not see

how this is to be done technically to a great number of subscribers. Of course, with the proper equipment the technique today allows you to transmit and receive pages almost anywhere, but it is not possible to send to more than a handful receivers.
As an extension of this technology it is of course possible for the receiver to print out just the pages he is interested of, but then you have lost the whole idea with a newspaper. All the information is there for you to see and you select what you will read. The rest is there and you can easily go back and find it. That is also why advertisers prefer newspapers before for example TV or direct mail. You reach your audience with an interesting mix of news and advertisement, not only the latter or as in TV a short glimpse that is gone after a few seconds. However, you can find several "prophets" who talk about the neccessity of producing tailormade newspapers in a near future.
As I see it, taking into consideration the pace for extending the networks for telecommunications and the need for better telecommunications for the industry, there will not be possibilities to transfer newspapers computer-to-computer directly to the readers. It might be interesting to transfer papers to remote places, out of reach for a normal distribution within a reasonable time and tests are made in this area at one newspaper in Finland.

Facsimile newspaper

Research and tests are done to examine the possibility to send a newspaper to readers you otherwise cannot reach. The tests are made at Turun Sanomat in Finland. Turun Sanomat has made an agreement with a travel agency to transmit a fax newspaper to Finns abroad on holiday. The newspaper sends one for the purpose specially made newspaper consisting of two pages in size A4. The paper is transmitted by the common telefax to a receiver at the hotels, where it is then copied according to the need.

The readers gets a choise of news from home and it is very popular. The main problem with this project is to find time for transmitting when there is low traffic in the telecommunications. It takes a rather long time to transmit although the format is only A4.

Inserting

Another way for newspapers to increase the capacity of the press is to preprint sections of the paper that can be done in advance and then insert the sections into the main newspaper when it is being printed. You gain economy as you use the press on times when it is not normally in use. Most of the newspapers are printed within two hours and the press is idle most of the twentyfour hours and only costs money. Eguipment for inserting has come to the market within the last five years and the technology allows you to insert not only products printed in your own press but also other products. For the reader it can be difficult to see what is the newspaper and what is not and there is criticism against the use of the newspaper as "an envelope" for direct mail.

Electrostatic printing

A totally new technology that is under development and that may change the newspaper production in the future is electrostatic printing. The idea would be that the editorial computer system is directly connected to the press. The printing cylinders are similar to the copiers we use today and the pages are electronically charged to the drum and can be altered theoretically for every turnaround.

Until now unknown possibilities to make special newspapers aimed to groups of readers opens up with this technology but it is not yet operational for newspapers and probably will not be within the next ten to fifteen years. And from that time the step to production is long.

Summary

The newspaper industry in Scandinavia is in the middle of heavy investments. Investments in both new technology and education of the staff in order to take full advantage of the new possibilities. It will take a long time before an optimal productivity and quality is achieved and the branch is unlikely to be able to alter the production technology again within the next twenty years. The period of time is too short and there doesn't seem to be the same need for changes in the future as it is today. The old technology lived for almost 400 years, let's hope that the new technology will survive the next twenty.

Thank you for listening

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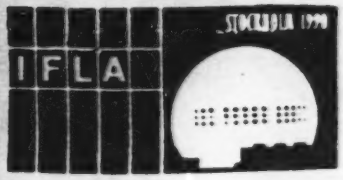

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Development of the Swedish press and journalism since the Thirty Years War until today

by

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The Development of Swedish Press and Journalism since the Thirty Years War until today

1 *The Seventeenth and Eighteenth Centuries*

The Swedish press is not the oldest in the world, but of all the newspapers there are in the world, the one with the longest uninterrupted length of life is Swedish. This newspaper is called *Post- och Inrikes Tidningar* and is today merely an organ for official announcements from the government. When it began to appear it was a newspaper that brought news to the Swedes about the ongoing war on the Continent - the war that was to be called the Thirty Years War, and in which Sweden took part. The name was at the start *Ordinari Post Tijdender*, and the first copy was published in 1645. Since then it has been published, roughly speaking, with no interruptions, even if the name and the contents have changed during the years.

Ordinari Post Tijdender was the first regular periodic publication in Sweden but it had some forerunners. The earliest newspaper proper, being published once a week, appeared on the Continent around 1610. In Sweden a copy of a newspaper, bearing the name of *Hermes Gothicus*, was published in 1624. Possibly, it was planned to appear regularly, but after the first copy it was not continued. In the 1620s and 1630s when the Swedes were involved in the wars on the Continent, king Gustavus II Adolphus and his advisors purposefully used the printing presses in order to spread propagandistic "relations" and leaflets about the war events. These items were not published periodically, only on special occasions, but they show that there existed at an early stage awareness of the political significance of the printed word.

During the 17th century Sweden was governed by royal autocracy and, as other countries having a comparable political system, e.g. France, the press was placed under direct governmental control. Ordinari Post Tijdender was for many years the only newspaper permitted in the country. The government thus acquired monopoly on the news

distribution, and the paper was edited by the postmaster of Stockholm. The contents were hardly more than foreign political and military news, but a few advertisements for, among other things, books also appeared even at this early stage. Towards the end of the 17th century the royal autocracy under king Charles XI got tougher, and after 1686 the country possessed a Censor librorum whose task it was to make a preliminary review of all prints, books as well as newspapers.

Beside Ordinari Post Tijdender, or *Posttidningen*, as it is often called, there existed for many years not more than one or two scientific journals, among others *Daedalus Hyperboreus* (1716-1718), a journal that accounted for technical experiments and inventions, and among whose contributors was the great Emanuel Swedenborg. A new, important stage in the history of the Swedish press was, however, begun when the first copy of the weekly publication *Then Swänska Argus* was published in 1732. Argus was a "moral" journal or essay-paper, based on the pattern of the famous British journals The Tatler and The Spectator. After 1720, the royal autocracy was succeeded by a more liberal political system, and it was now possible to conduct a somewhat more open discussion. Argus, which ceased in 1734, contained, however, mainly satirical essays on human virtues and failures, sometimes with political allusions. The journal was written in its entirety by one single man, Olof von Dalin, an innovative master of style. Argus was a primer to the evolution of the Swedish language.

During the following decades the news journals also began to grow in number. Until around 1750 Posttidningen was in reality the sole existing news medium, but after this year local news magazines by and by appeared in the greater cities, first in Stockholm, Gothenburg, Norrköping and Karlskrona. These newspapers had, however, for a long time rather meager contents, mainly commercial announcements and literary stuff. Foreign news were, as before, reserved for the governmental Posttidningen. Nevertheless, the contents of these new papers testify that there now existed a growing social and economic base for the press, and it is obvious that the newspapers were beginning to attain importance as service media for industry and commerce.

The need for local and domestic newspapers was realized even at the highest level and caused the editor of Posttidningen, the postmaster of Stockholm, to begin editing *Inrikes Tidningar*, whose task it was to convey domestic news as a complement to the foreign news in Posttidningen. These two journals were each published three days a week, a system that continued until 1821, when they were merged into one daily newspaper under the still used name Post- och Inrikes Tidningar.

The first daily newspaper in Sweden was, however, *Dagligt Allehanda*, that appeared in 1768 in Stockholm. Dagligt Allehanda became the dominant medium for the local news and advertisements in the capital. It might be worth mentioning that by this the Swedes got a daily newspaper earlier than, for instance, France.

Politically the decades around mid 18th century were marked by the fights between two party groups, the bureaucratic and mercantile "hattarna" (hats) and the middle class "mössorna" (caps). The debates between these two groups indicated the beginning of a parliamentary system and was important also for the press, that during the 1750s and 1760s grew more political than before. Both "hats" and "caps" published journals where they attacked their opponents, and it was now possible even to refer the parliamentary debates in the press.

The most important expression for this new climate was, all the same, the fact that Sweden in 1766 passed a Press Law, that was extraordinarily liberal for its time and in many ways laid the ground for the great freedom that the Swedish press has enjoyed. Behind the Press Law of 1766 lay ideas emanating from the Continental Enlightenment philosophers and from liberal England. Most important in the Press Law was the total abolition of censorship, meaning freedom for anybody to publish a newspaper without preliminary supervision but yet responsibility for the contents not offending the laws. A principle of public access to official records was also brought into practice, making it possible to scrutinize and publish documents emanating from various authorities.

The Press Law brought about a more intensive political debate in the press, but in 1772 king Gustavus III accomplished a coup d'état and during his reign and that of his successor, Gustavus IV Adolphus, the freedom of the press was confined in various ways. Every publisher had to apply for a personal charter on his newspaper, and detailed directions as to the contents of the newspaper were issued. These directions were, of course, particularly restrictive when it concerned political discussions and news. The Swedish newspapers were, for instance, forbidden to publish news about the French revolution.

During these politically severe years the cultural and literary stuff flourished instead in the press. *Stockholms Posten* (1778-1833), that during the 1780s and 1790s was edited by the brilliant poet and critic Johan Henric Kellgren, became a superior cultural newspaper. Kellgren was perhaps the most important intermediary to Sweden of the modern ideas of the Enlightenment, and in Stockholms Posten he published not only many of his own poems but also many reviews and contributions to the cultural debate.

2 *The Nineteenth Century*

The dictatorial reign of Gustavus IV Adolphus was overturned in 1809, and a new, liberal Press Law (1810-1812) established the freedom of the newspapers to appear without censorship. The Press Law, however, made it possible for the authorities to withdraw the publishing licence if a newspaper was considered to contain matters contrary to the regulations. This "power of suspension" was used many times during the following years, but all

the same the press began to act as a major force in society. The Press Law also brought about the start of many new journals, both newspapers and specialized publications on culture, science and popular reading. The editions were, however, still small. Most journals could only count on some hundred buyers, and the readers were limited to the highly educated and economically well off classes. Journalism was as yet no profession in its own right, but usually just a second occupation for literarily inclined persons.

A big political breakthrough for the press was the start of *Aftonbladet* in 1830 by Lars Johan Hierta. Aftonbladet was the leader of the liberal middle class opposition against the conservative system and soon became the totally dominating journal. Aftonbladet, being both the leading political organ and the most forward newspaper, was spread all over the country and in 1840 reached the biggest circulation a Swedish newspaper hitherto had attained, around 8.000 copies. The authorities tried to stop the paper, but Hierta cleverly evaded them, and after some turbulent years the "power of suspension" was abolished. By this the freedom of the press, which has been maintained, roughly speaking, ever since, was established. Aftonbladet and Lars Johan Hierta thus played a very important role for the liberation of the political debate and for the development of a parliamentary and democratic system.

Outside Stockholm several new journals, making the debate and the distribution of news more lively, were founded, too. Now, even in the distant northern parts of Sweden newspapers began to appear. Among the new liberal papers *Göteborgs Handels- och Sjöfartstidning*, in particular, made its mark. Later on, it became a leading political and cultural organ. The conservative papers, sometimes economically supported by the king and the government, could not measure up to this new liberal press, neither in circulation nor in influence.

Many new steps in modernizing the newspapers were taken from the 1860s and onwards. At this time better technical conditions for the production and the distribution had been created, e.g. the railway and the telegraph. The political democratization and the social equalization had caused a growing interest in reading newspapers, and the ability to read, that since old has been rather advanced in Sweden, was further improved after a decision in parliament to introduce a compulsory ground school.

A journalist who early realized the new possibilities was Rudolf Wall, who in 1864 started *Dagens Nyheter* in Stockholm. Dagens Nyheter was a popular and cheap morning paper, created after the patterns set by foreign mass journals like *Le Petit Journal* in Paris. It used effectively the modern communications for the gathering and distribution of news, it was politically radical and contained a lot of popular reading, for instance feuilleton novels in the French style. Dagens Nyheter soon became the biggest daily newspaper in the country and reached a circulation of around 25.000 copies during the 1880s.

The decisive step towards the mass distributed daily newspaper was, however, taken by *Stockholms-Tidningen*, which was founded in 1889 by Anders Jeurling. Stockholms-Tidningen used the same commercial and journalistic methods as Dagens Nyheter but to a greater extent: a low price, active selling methods, popular contents with a lot of concentrated news and popular reading. It was the first Swedish newspaper to reach a circulation of more than 100.000 copies, which it did even before 1900. Stockholms-Tidningen was in a high degree a journal for the lower middle class and succeeded early in acquiring the important market of Stockholm for small advertisements. In spite of its name, it was also widely spread outside the capital.

The last decades of the 19th century were marked by hardening conflicts between conservative and radical forces in Sweden. By this time industrialization had gathered momentum and the base was laid for a strong socialist labour movement and for a socialist press. In 1884 *Svenska Dagbladet* was founded and soon became the leading conservative organ. The first important daily papers within the labour movement were *Social-Demokraten* in Stockholm (1885-1958) and *Arbetet* in Malmö, founded in 1887 and still the biggest social democratic morning paper. During the years following 1900 several other socialist newspapers were started in other regions of the country. Generally speaking, it has been hard for the socialist or social democratic press to stand up against the older liberal or conservative newspapers, which have been stronger in the important fight for advertisements. The political domination of the Social Democratic Party for a great part of the twentieth century has thus not had a counterpart within the press.

Towards the end of the nineteenth century the Swedish newspapers began to reach readers other than the highly educated and well off. The country dwellers and the labourers and artisans in the towns now frequently bought and read newspapers. This development was facilitated by the current modernization of the press itself. The contents of the newspapers grew more popular, new journalistic methods (the reportage and the interview) were introduced, the distribution was speedened up, and the amount of popular reading was increased. The newspapers also became noticeably cheaper.

3 *The Twentieth Century*

The next step in the modernization was taken some years after the beginning of the twentieth century, when the biggest newspapers changed their editorial principles after American patterns. The size of the until now very big pages was diminished and the number of pages was increased, a change made possible by the use of modern rotation presses. Earlier the advertisements used to be printed on the front page but now the major news were gathered there. The first newspaper to use this method was Dagens Nyheter (1909) but the other daily newspapers

in Stockholm soon followed suit. This development was stimulated by the intensive flow of news during the First World War. Sweden was not directly involved in this but the sensational news from the war caused a general breakthrough for a front page layout with big headings and photo illustrations.

Around 1920 Sweden had more general newspapers, about 235, than ever before. However, many of them were small and were not published all days of the week. Most of them had local competition but managed all the same to continue; they often were published every other day and many of them in the afternoon, as a complement to the morning papers. The dominating morning papers in Stockholm were at this time the liberal organs Stockholms-Tidningen and Dagens Nyheter, the conservative Svenska Dagbladet, and Social-Demokraten of the labour movement. The old evening paper Aftonbladet had receded both in circulation and in reputation. In the second biggest town, Gothenburg, the two dominating papers were Göteborgs Handels- och Sjöfartstidning and *Göteborgs-Posten* (founded in 1858). In Malmö, the third town, there were among other newspapers the social democratic Arbetet and the conservative *Sydsvenska Dagbladet Snällposten* (dating back to 1848).

During the 1920s, the Stockholm press became more and more involved in the transactions of great capital. Dagens Nyheter was bought by the big publishing concern Bonniers, to which it still belongs, while Stockholms-Tidningen and Aftonbladet were taken over by the tycoon Torsten Kreuger. At the beginning of the 1930s, he equipped Aftonbladet with presses for tabloid format, and the newspaper thereafter went through one of the most sensational changes in the history of the Swedish press. The journal, replete in traditions but delapidated, was transformed into a modern evening paper with a fast and sensational news distribution with big headlines, many pictures, a lot of sport, cartoons and so on. At the end of the 1930s the circulation was nearly 200.000 copies, and this made Aftonbladet, for the second time, the biggest Swedish newspaper.

The Second World War meant important changes to the press. Neither this time was Sweden directly involved in the war but kept a neutral line, that in the beginning, however, meant yielding rather much to demands from victorious Germany. Especially after the occupation of Denmark and Norway in 1940 by the Germans the Swedish government tried in different ways to influence the formation of opinions and distribution of news by the press in order to make it not too challenging. The Second World War therefore was in many ways a relapse into a more repressive press policy. Yet many newspapers followed a strict anti-nazi line during the whole war. Most conspicuous was Göteborgs Handels- och Sjöfartstidning under the guidance of Torgny Segerstedt, a controversial professor of theology who made a great contribution as publicist in the fight against Nazism.

The successful Aftonbladet showed, on the other hand, a pro-nazi attitude, which provoked countermeasures from other newspapers. Two new tabloids were launched in

Stockholm, the social democratic *Afton-Tidningen* (1842-1956) and *Expressen* (1944), belonging to the Bonnier group. In a short time Expressen became a too powerful competitor for Aftonbladet, and from the end of the 1950s Expressen is the biggest daily newspaper in Sweden. Aftonbladet has, too, had great success, and the market for popular tabloids has in general been very favourable in Sweden during the latest decades. The two big Stockholm tabloids are nowadays distributed all over the country (partly also printed outside Stockholm) and are generally read as a complement to the local morning papers.

For the Swedish press in general the first few years after the Second World War were troublesome, due for instance to a dramatic inflation. Many newspapers had to close down, and in fact the 1950s and the beginning of the 1960s was a period when almost a third of the independent newspapers disappeared, usually those ones that could not stand up in the local competition. The absolute size of the circulation did not seem to mean so much. The total circulation of the press was, however, still rising - the total number of copies was thus concentrated to a smaller number of newspapers. Such trends of concentration became more apparent as to the ownership of the newspapers, too. A much debated business transaction took place in 1956, when Torsten Kreuger sold Stockholms-Tidningen and Aftonbladet to the LO, the central organization of the labour trade unions. Those two old liberal newspapers thus turned social democratic.

The newspaper death created a wide debate, and it was demanded that society should give economic support to the press. It was said that if the laws of market economy were to rule without restrictions within the newspaper branch, there would at the end exist only a few newspapers, and thereby the timehonoured, manysided formation of political opinion in the Swedish press would be jeopardized. Others rejected the idea of governmental support to the press, fearing that such support would render the newspapers economically dependent on the politicians in power.

During the 1960s some newspapers were closed down in a remarkable way, among others Stockholms-Tidningen, the biggest social democratic morning paper. After this there was a parliamentary majority for an extended governmental support to the daily papers, perhaps the most extensive one in any country. The support was introduced in its present form in 1971 and has almost totally put an end to newspaper deaths. The most important part is the direct "production grant", which by certain rules is given to those newspapers that are in a competitively bad situation. The newspapers that dominate in their regions are, on the other hand, not given production grants. Neither do the big tabloids receive such grants, as they are sold mainly in single copies. The press support is expensive for the government, i.e. the Swedish tax-payers, and for that reason it sometimes causes discussion, even if nowadays hardly anybody suggests that the support really has made the press politically and economically dependent on the persons in power.

The contemporary Swedish newspapers have a total circulation of around 4,9 millions of copies for a population of barely 9 millions, which means that Sweden has one of the most frequent newspaper-reading populations in the world. The number of newspapers is approximately 170, but this figure also includes local papers that appear only once or twice a week. If you take into account only those newspapers that appear 4-6 times a week, the number is around 100. The biggest newspapers for the time being are as follows:

Expressen (popular tabloid, Stockholm), around 570.000 copies

Dagens Nyheter (morning paper, Stockholm), around 415.000 copies

Aftonbladet (popular tabloid, Stockholm), around 400.000 copies

Göteborgs-Posten (morning paper, Gothenburg), around 275.000 copies

Svenska Dagbladet (morning paper, Stockholm), around 225.000 copies

Idag (popular tabloid, Gothenburg/Malmö), around 200.000 copies

The biggest newspapers outside Stockholm, Gothenburg and Malmö are *Nya Wermlands-Tidningen* in Karlstad (around 72.000 copies) and *Nerikes Allehanda* in Örebro (around 70.000 copies).

The Swedes thus are in a high degree a newspaper-reading people, and usually they do not just read a local morning paper but also one of the tabloids Expressen or Aftonbladet (the similar *Idag* is limited to the southwestern part of the country). As already remarked, the increase for these tabloids during the latest decades is a remarkable feature in the development of the Swedish daily press. The tabloids have gained their successes by a very active, selective journalism, that is much more a complement to other mass media than a competitor. In particular, the tabloids have become a complement to television, and great parts of their contents are in different ways related to the TV programmes.

The Swedish newspaper press was earlier in a high degree a political party press, being mouthpiece for and often owned by the political party groups. Most daily newspapers take part in the political debate, but in most cases the party ties have been cut off, even the economical ones. Exception must be made for the so called A-press, which is a collective name for a group of social democratic papers, owned by the Social Democratic Party and the LO. The majority, and the biggest, of the newspapers can be marked as liberal or conservative. Expressen, Dagens Nyheter and Göteborgs-Posten are of a liberal colour, Svenska Dagbladet is conservative. The biggest social democratic paper is the popular tabloid Aftonbladet.

The last few years have been favourable for the Swedish newspaper press due to a good economic situation in society, which has meant high income from advertisements. However, it should be remembered that this income is unequally distributed and that several newspapers are heavily dependent on the governmental press support. Technically the newspapers are well advanced and possess, generally speaking, a very modern equipment for news gathering, printing and distribution. The change into modern computerized methods of production has, on the whole, passed without trade union conflicts, all in old Swedish tradition. Newspaper reading among the public is stable and new electronic mass media do not yet seem to threaten the printed media.

A negative factor is the heavy rise in costs during the last years, which has made it almost unsurmountably expensive to start new newspapers, and which can pose problems for those papers that soon will have to renew their technical equipment. As to the production there is now a clear trend towards cooperation between the newspapers, even if they politically belong to different camps. A significant example of this is the fact that the biggest social democratic newspaper, Aftonbladet, and the biggest conservative one, Svenska Dagbladet, only this year have begun to use a new, common printing house in Stockholm. Also this remarkably unprejudiced attitude contributes, in its way, to the strong position that the Swedish newspaper press must be said to possess on the threshold to the twenty-first century.

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The Development of Swedish Press and Journalism since the Thirty Years War until today

ABSTRACT

The paper presents a concentrated account of the development of Swedish newspaper press and journalism from its beginning in 1645 until today.

During the epoch of royal autocracy in the 17th and 18th centuries there existed only one newspaper proper, the time-honoured Ordinari Post Tijdender, today the world's oldest existing periodical publication (under the name Post- och Inrikes Tidningar). Later in the 18th century several more newspapers appeared, and the press also began to play a part in the political debate. This trend was continued during the 19th century, and a great political breakthrough for the press was achieved by the liberal Aftonbladet (founded in 1830). During the last decades of the 19th century the decisive steps were taken towards mass distributed newspapers, especially with Dagens Nyheter (1864) and Stockholms-Tidningen (1889). In the beginning of the 20th century these and other leading newspapers were technically and journalistically modernized, mainly after American patterns.

The total circulation of the newspaper press has been in growth during the whole 20th century, but after the Second World War a large number of newspapers has disappeared, and the rising number of copies has been concentrated to a smaller number of newspapers. An end to newspaper death has, however, been put by a very extensive system of governmental support (from 1971) to newspapers that are in a competitively bad situation. A remarkable feature in the development of the latest decades is the successes for the popular tabloids, in particular Expressen (founded in 1944) and the older Aftonbladet. The newspapers today have a total circulation of around 4,9 million copies for a population of barely 8 millions, which means that Sweden has one of the most frequent newspaper-reading populations in the world.

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